

FY2009

*SUPERINTENDENT'S
ANNUAL NARRATIVE*



YELLOWSTONE NATIONAL PARK

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Superintendent's Office

In FY2009 the Superintendent's Office consisted of Suzanne Lewis, Superintendent; Colin Campbell and Chris Lehnertz, Deputy Superintendents; Jan Laye, Executive Assistant and Kerrie Evans, Secretary and Freedom of Information Officer.

In FY2009 the Superintendent's Office prepared 16 FOIA Requests, 22 Chapel reservations, 18 congressional responses, 186 VIP Reservations and prepared itineraries for Secretary of the Interior Ken Salazar, Assistant Secretary for FWP Tom Strickland, Former Assistant Secretary of the Interior, Nathaniel Reed, Representative Ron Kind, Representative Virginia Foxx and family, Representative Rodney Alexander, and the 2nd Century Group.

Hot Topics:

- ***Bison Management***
- ***Winter Use***
- ***Wireless Plan***
- ***ARRA Projects***
- ***Record Visitation to the park***
- ***Presidential Family Visit***

The Superintendent traveled on behalf of the park to Denver, CO, Washington D.C. and Cody, WY, for winter use meetings. She met several times with the Sylvan Pass Study Group to discuss winter use issues on Sylvan Pass in the park and avalanche operations and mitigation. The Superintendent traveled to Washington D.C., Denver, Colorado, and Helena, Montana, to attend Interagency Bison Management Plan partnership meetings. She attended Director's Advisory Board meetings in Golden, Colorado, and Arlington, Virginia, and the George Wright Society meetings in Portland, Oregon. The Superintendent and park staff was honored to attend an awards dinner on the MSU campus in Bozeman, Montana, with Pulitzer Prize winning Biologist E.O. Wilson and other esteemed guests. Superintendent Lewis traveled to Bozeman, Montana, to take part in commercial strategy sessions, to Jackson, Wyoming for the IMR Partnership meetings, and Cody, Wyoming, to take part in the premiere of the Ken Burns National Parks series.

In Yellowstone, Superintendent Lewis participated in a visit from the 2nd Century Commission at Mammoth in January. During the early summer months, Superintendent Lewis welcomed the King and Queen of Norway to the park, hosted tribal strategy sessions, and also the President of the United States, Barak Obama and his family later in August.

Along with staff from Yellowstone's partner, the Yellowstone Park Foundation, the Superintendent traveled to events in Portsmouth and Manchester, New Hampshire, to Detroit, Michigan for a Toyota Expo Event, a meeting with Michelin employees in Greenville, South Carolina, and visited Canon, Inc. in New York.

Safety Services

In FY2009 Ken Meyer continued to hold the position of Safety and Occupational Health Manager. Deborah VanDePolder held the position of Safety Assistant at (GS06), and then was promoted into a position in Finance. The Safety Assistant position was upgraded to a GS-9 Safety Specialist position. This position was filled by Jim Beason and was designed to provide more safety assistance to field employees.

Ken focused his efforts working closely with Division Chiefs in an effort to improve the park's safety culture.

The Employee Safety Committee an Executive Safety Committee continued to operate and worked to eliminate at risk behaviors and mitigate hazards.

The DART rate in Yellowstone in FY2009 was 4.2.

Public Relations

In fiscal year 2009, the Public Affairs Office consisted of four employees: Al Nash, Chief of Public Affairs; Stacy Vallie, Public Affairs Specialist/Film Permit Coordinator; Karen McEneaney, Public Affairs Assistant/Film Permit Monitor; and Linda Miller, Secretary.

One hundred thirteen press releases were issued on a wide variety of issues, some of which were very controversial and sensitive in nature, including winter use, bison and wolf management, wildfires, wildlife population counts, release of new wireless plan, fatalities, bison-caused injuries, euthanization of an habituated wolf, road closures due to construction, and benefits sharing. In addition, releases were issued on other less controversial topics such as record visitation, fee-free weekends, American Recovery & Reinvestment Act projects, the debut of online ranger talks and a new geology film, "America's Best Idea" events, and other operational activities.

The two most contentious park issues are winter use and the management of bison. These topics consistently draw local, regional, national and even international attention. These issues are very complex, controversial, and perpetual, requiring an extensive commitment of Public Affairs staff time to address the hundreds of congressional, media and public information requests related to them. With the legal complexities of these issues, comes the need for proactive planning, rollout strategies, media plans, community and interagency interaction and communication, and developing employee talking points and question and answer sheets.

PAO staff coordinated, prepared, or arranged itineraries and interviews with various Yellowstone managers for numerous local, national, and international representatives of the media, academia, and government groups. Fifteen international groups were among those assisted through the Public Affairs Office in FY2009.

Approximately 200 requests for commercial filming, photography and sound recording permits were received in the Public Affairs Office in Fiscal Year 2009, resulting in the issuance of 63 permits. Extensive planning, monitoring, location scouting and research went into these projects. Considerable time was also spent on filming and photography proposals where no permits were issued.

Management Assistant

In 2009, the Management Assistant's Office, within the Office of the Superintendent, continued to focus primarily on the winter use issue for Yellowstone and Grand Teton National Parks. John Sacklin and Kevin Franken staffed the office. In addition, Mike Yochim, who had been part of the winter planning team since 2004, completed his term position in spring 2009. Joe David was on detail to the park from the BLM from August to November 2009.

2007 Winter Use Plan:

The U.S. District Court for the District of Columbia vacated the 2007 Winter Use Plan EIS, Record of Decision, and regulation on September 15, 2008. When the 2007 rule was rejected, it was replaced by the 2004 winter use rule, which was promulgated on the basis of a temporary, three-year plan and environmental assessment (EA). The 2004 regulation itself was not temporary, but the authorization to allow snowmobile and snowcoach use expired at the end of the 2006-2007 winter.

The 2004 plan had been challenged in both the District of Columbia and Wyoming courts, and it was upheld in Wyoming. In the District of Columbia court, one challenge was denied, and the other determined moot due to Congressional action (appropriation language in FY 2005, 2006, and 2007 directed the National Park Service to implement the 2004 rule).

2008 Interim Winter Use Plan and 2009 Rule:

With the vacatur of the 2007 plan, the NPS had no winter plan in place, and the season was to open in 90 days, December 15, 2008. To provide a short-term solution, the NPS prepared another interim winter plan EA and proposed rule-making. The 2008 Winter Use Plan EA was completed November 3, 2008, and a proposed rule was published in the November 5, 2008 *Federal Register*. Both were released for a 15-day public comment period. They called for up to 318 commercially guided, best available technology snowmobiles and 78 snowcoaches each day for a three-winter period, while a new long-term winter plan was prepared. This interim proposal was termed the "318" rule for the number of snowmobiles allowed.

On November 7, 2008, the U.S. District Court for the District of Wyoming ordered that the NPS reinstate the 2004 temporary rule until such time as it could promulgate an acceptable rule to take its place. In response, the NPS complied with the court order and reinstated the 2004 rule (without the sunset provisions) through publication in the December 9, 2008 *Federal Register*.

The 2004 plan allowed for up to 720 commercially guided, best available technology snowmobiles and 78 commercially guided snowcoaches per day. The 2004 plan had been in effect since December 2004 (under the 2007 plan, the first year of implementation was to continue the provisions of the 2004 plan). The Wyoming court ruling kept that plan in place for a fifth winter, 2008-2009.

The court ruling also provided time for the NPS, working with the new administration, to determine appropriate short- and long-term winter planning processes. The NPS reopened comment on the "318" rule in the July 24, 2009, *Federal Register* for an additional 45-day period. Taking into account the body of comment from both the EA and rule public review periods, the NPS signed a Finding of No Significant Impact on October 15, 2009, and published a final rule in the November 20, 2009, *Federal Register*. For Yellowstone, the "318" rule was to be in effect for two winters (2009-2010 and 2010-2011) while a long-term winter plan would be prepared. For Grand Teton National Park and the John D. Rockefeller, Jr. Memorial Parkway, the 2008 plan/2009 rule is a permanent, long-term decision.

The November 9, 2008, Wyoming court ruling was appealed by National Parks Conservation Association (Intervenor-Appellant) to the 10th Circuit Court of Appeals, which ruled on November 24, 2009. The Circuit Court dismissed NPCA's appeal as moot (because the NPS had published the "318" rule on November 20, 2009). As an aside, the 10th Circuit Court ruling is one of the more readable summaries of the legal situation for winter use planning.

New Long-Term Plan

Preliminary steps to prepare a new long-term plan began in summer 2009, with the formation of a Project Team, composed of Natural Resource Program Center, Region, and park staff to help guide the process. Also, Public Engagement and Science Working groups were created to assist with those aspects of the new plan and EIS.

Managed Winter Use

The winter of 2008-2009 represented the fifth winter under a managed winter use regime. All snowmobiles had to be commercially guided. Daily limits were in place for snowmobiles and snowcoaches. All recreational snowmobiles had to meet NPS best available technology requirements. The parks were closed from nine in the evening until seven in the morning, and other restrictions have also been in place. Actual use was well below limits, with snowmobile use averaging 205 per day (peak day of 426) and snowcoaches averaged 29, with a peak day of 54, during the winter of 2008-2009.

The winter monitoring results over the past five winters indicated generally very good results. Historic, unacceptable conditions no longer exist. Monitoring shows very good to excellent air quality, significantly reduced sound levels, few wildlife impacts, and an excellent experience for visitors to Yellowstone. A 2007-2008 winter visitor survey by the University of Montana indicated near 100% satisfaction.

However, the NPS recognizes there is a strong public perception that unacceptable conditions still exist in the parks. Aside from navigating the legal waters, a continuing challenge facing the NPS is to better communicate that the managed snowmobile and snowcoach access program has worked.

Other Litigation:

In continuing active litigation on the 2004 winter use plan, the group Save Our Snowplanes had filed suit on March 29, 2005, in the U.S. District Court for the District of Wyoming, alleging the decision to ban snowplanes from Jackson Lake in Grand Teton National Park violated the Administrative Procedure Act. On June 27, 2007, Judge Downes in Casper, Wyoming, ruled in favor of the NPS. The ruling was appealed to the 10th Circuit Court of Appeals in Denver, and on June 2, 2009, the Circuit Court ruled in favor of the NPS.

Other accomplishments:

Mike Yochim completed his book, *Yellowstone and the Snowmobile: Locking Horns over National Park Use*, which is a history of the Yellowstone's winter visitor use issue. The book was published by the University of Kansas Press.

Comprehensive Planning and Design

In order to address the development and redevelopment of areas as park facilities age and visitation patterns change, managers preferred a comprehensive vision to protect resources and enhance visitor experience. The Comprehensive Planning and Design team was created in FY2008 to address this need. These plans are to provide limits of acceptable change through planning zones, planning prescriptions, and design standards.

Developed the Comprehensive Planning Team

Eleanor Clark continued as the Chief of Comprehensive Planning and Design. Dale Reinhart and Zehra Osman served as planners on the Comprehensive Planning and Design Team for the park. A need for a writer/editor was identified and a position was developed to replace one of the landscape architects on the team. One of the team members (Reinhart) was detailed to the division of Concessions Management and a replacement detail was developed from the division of Interpretation (Bob Fuhrmann). These details enhanced cross-divisional understanding to better integrate the work of these divisions.

Tower-Roosevelt Comprehensive Plan/EA

The team completed the Tower-Roosevelt Comprehensive Plan/EA (TRCP/EA), which was available for public review in June, 2009. The FONSI was signed in September 2009. Since the plan was a fairly new effort, terminology and concepts were evolving over the fiscal year. The IMRO visited YELL and was able to review, comment, and approve the concepts. The TRCP is now used as a template for future comprehensive planning in the park.

Old Faithful Comprehensive Plan/EA

This plan includes the Old Faithful developed area and portions of the Upper Geyser Basin. Resource inventories continued during the fiscal year for all resources in the Old Faithful area in preparation for the planning efforts. Area and Parkwide Interdisciplinary (ID) teams met during the year to develop the area significance and fundamental resources and values.

Additionally, the Montana State University School of Architecture assisted the park in preparing for a planning and design charrette by developing briefing materials and a scaled model for the project area. The Old Faithful Charrette, featuring academic, private sector, and public sector participants, developed alternative conceptual planning strategies to address issues in the Old Faithful developed area. Five planning and architectural firms participated as did faculty and students from Montana State University's School of Architecture. An illustrated document highlights the alternative strategies. The concepts from the charrette will provide ideas for use in alternatives evaluated in the Old Faithful Comprehensive Plan and EA. A Yellowstone Park Foundation grant provided funding for this effort.

Lake Comprehensive Plan/EA

This plan includes the Lake, Fishing Bridge, and Bridge Bay developed areas and portions of the Yellowstone Lake shoreline. Area and Parkwide Interdisciplinary (ID) teams began planning for this area and met monthly during the summer/fall of FY09 to discuss issues, area significance, fundamental resources and values. Resource inventories continued for this planning area.

Foundation for Planning

The team worked with members of other divisions and the deputy superintendent for resources to assemble a draft Foundation for Planning that addressed the significance of resources and values fundamental to Yellowstone found in areas across the park. This umbrella document provides the guidance for all the future comprehensive plans as they relate to existing enabling legislation and other guiding documents.

Cultural Landscapes Program

As a resource for comprehensive planning, cultural landscape inventories (CLIs) were undertaken for several areas in the park. Old Faithful CLI was completed and as a result the park met the GPRA goals for cultural landscape resources for FY09. CLIs for Lake Hotel, Lake Fish Hatchery were underway. CLIs for North Entrance, Yellowstone Park (Gardiner) Transportation Company, and Fishing Bridge were initiated. Comprehensive Planning and Design staff served as contracting officer's representatives for all the contracted work. In addition, the cultural landscape program continued to inform miscellaneous projects such as the Wireless Telecommunications EA.

Administration

Technology Services

In FY2009 the Technology Services Branch of Administration consisted of eight permanent, seven term, two seasonal, and one STEP employee. In November, Mike Reynolds accepted a Superintendents' position at American Samoa National Park. From January to September, the Supervisory Telecommunications Specialist position was filled with acting assignments of less than 120 days. Tim Gilk (GLAC), Andy Bilton (YELL) and Bret De Young (YELL) were Acting Branch Chiefs until September when Bret filled the position.

Within the Branch, there are four shops.

1. Alarms/Access Control/Video Security/Utility Monitoring
2. Information Technology/Computer Support Services
3. Land Mobile Radios
4. Telecommunications

Safety



Technology Services had one reported injury in 2009 with no lost time. There are significant hazards inherent in our fields of work and I congratulate the whole crew for their impressive record of safety. Some achievements in the realm of safety are listed below.

- We began work on an Underground Utility Locate YOP. The draft YOP includes methods to notify all “other utilities” and to close the loop and inform on-site contacts when locates are complete. One call notifies commercial utilities, we notify “other utilities” including NPS district maintenance, Craft Shops, Xanterra, Delaware North, YPSS and more. Ninety-three locate tickets were processed in 2009.
- We developed a Safety Training Checklist for the specific groups in the Technology Services branch. We provided training to the Technology Services safety trainer. Twenty-one safety meetings were held during regular Wednesday morning meetings.

- Two Technology Services staff contributed to the Employee Safety Committee Re-Engineering Team and one attended Operational Leadership training twice.

Fire/ Security Alarms, Access Control, Video Security, and Utility Monitoring

Two permanent employees, four terms and one seasonal make up the group. Two technicians are certified NICET III fire alarm designers, one is a NICET II fire alarm technician, and two are NICET I technicians. Contract documents were developed in Tech Services for an eleven building project that included fire alarms, intrusion alarms, and utility monitoring in offices, dormitories and utility plants. The alarm group completed all project design documents including CAD drawings, electrical calculations, and statements of work with certified NICET designers. The contract was awarded at the end of 2009. Two appointed inspectors were assigned to follow up with the electrical contractor's crews. The group coordinated checkout with the Structural Fire Chief and NICET certified technicians. At the end of each project, preventive maintenance was scheduled, and O&Ms and record drawings were completed. In addition, several in-house alarm projects were completed by TS staff.



Annual tests are required by NFPA's Fire Alarm Code (72) and Guide for Premise Security (730). We continued annual tests of one-hundred seventy-two NPS alarm Systems and began to schedule annual tests for intrusion and panic alarms, and utility monitoring systems.

In September, a clean agent suppression system was contracted for installation in the Administration Building PBX Room. NOVEC 1230 was the suppression agent specified for this installation. It has the best environmental profile in the industry, with 0 factor global warming potential and 0 factor ozone depletion. It is effective in extinguishing fires in equipment rooms that contain sensitive electronic equipment resulting in little or no damage, unlike water based systems.

Radios



The radio shop continues to be busy with backcountry cabin projects. Eight cabins either had new radio battery charging stations and antennas installed, or had repairs made. Foot and horse travel was used when possible and safe for the crew.

Several trips were made to repeater sites for preventive maintenance, and testing at Mount Holmes, Purple Mountain, Survey Peak, Mount Sheridan, Top Notch, and Mount Henderson. SOA Repeaters were mobilized and demobilized and portable and mobile radio support

was provided for the Arnica Fire and the Presidential visit incident command.

We trained over seven hundred users on portable and mobile radios in the new training room located in Building 38. We observed improved radio communications as a result of the training.

Yellowstone Radio Technicians supported Devil's Tower National Monument, Bighorn Canyon Recreational Area, Little Bighorn Battlefield National Monument, and Grant Kohr's Ranch with programming, repair, and consultation.

Wireless Cellular Communications

Yellowstone developed one-year right of ways extensions for the existing wireless telecommunication providers' facilities and cellular towers in Yellowstone Park in developed areas identified in the Wireless

Telecommunication EA. Updated ten-year right of ways will be re-written for Verizon, Alltel and Union Wireless in 2010. An SF299 request for right of way and engineering proposal was received for the Lake wireless telecommunications facility site at the fresh water tank. Engineering documents for the Lake cellular site are required for the Wireless Telecommunications Committee to ensure that the proposals meet the requirements of Alternative C of the Wireless Plan EA. Other requirements are detailed in RM53 Special Park Uses.

The Wireless Telecommunications Committee developed a proposal form and procedure to review the details of proposals for new wireless services, and ensure that they meet the requirements of the Wireless Telecommunications FONSI that was signed in to effect by the Superintendent, in April 2009. The Committee meets monthly to review proposals and provide informational updates on developing and active projects.

Information Technology / Computer Support Services / Telecommunications

Telecommunications installed a new Telephone/Voice Mail System at Snake River Ranger Station and continued the Definity PBX Port Consolidation, which reduces maintenance expenses. We continued VOIP phone migration throughout the park in areas such as the Mammoth Garage, North East Entrance and HRC reducing the monthly phone bill. Ongoing cabling/patch panel replacement projects of various sizes occurred throughout the park as well.

Phone and network mobilization, demobilization and support was provided for the Arnica Fire and the Presidential visit incident command.

CSS and Tech Services had 7,580 work requests with 7,326 resolved this year. The requests included 455 Lotus Notes, 399 network, 378 phone, 372 ID Cards, 230 computer setup\install, 207 printers and 51 cell phone work requests. We processed 292 monthly telephone bills under one park-wide account. Both Technology Services and CSS checked employees in and out of the park with a total of 2,078 transactions processed and we once again, tracked FISSA training for approximately 900 computer users.

CSS continued the Printer / Toner recycling program, saving the park money on printing and redirecting waste from landfills. New computers were a big thing in 2009. CSS set up 70 new computers.

We kept busy building and maintaining various and varied databases for rangers, human resources, technology services, backcountry offices, maintenance (utilities) and asset management.

General

We supported Fuel Master with one-hundred and eight preventive and reactive service calls as well as equipment upgrades

Human Resources

Leave Share Recipients	6
Background Investigations completed	Employees 353, VIP's 104, Re-investigate 13
Drug Tests completed	141
Orientations (park wide)	3
Retirements	1

Death	1
OWCP cases	76
Tel Trainings	63
Training Hours	23,109
Announcements	36 FY09
Apps Rec'd	3885 FY09
Positions Filled – perm/term	76
FPPS actions	2766
EO Complaints	0
Grievances	1 informal
Mediations and counseling sessions	0
Disciplines	4 formal letters, 1 removal, 1 proposed removal, 1 probationary removal
PIP	0
Hardship Transfer	1

Additionally, the Yellowstone Human Resources Office took over the lead for the Northern Rockies Supporting Human Resources Office in August 2008 and is continuing the process of bringing a new HR organization into existence. The office assistant spent many hours cleaning out OPFs so they would be ready to be scanned in FY09 for implementation of e-OPF. The HR office also began using e-QIP, automated background investigation software, to submit background investigations to OPM.

OFFICE SERVICES - 2009

In 2009 Office Services continued with a staff of two.

During the year we processed 18,768 pieces of outgoing mail through the mail meter machine for Yellowstone National Park, down 3,413 from the previous year. 363 pieces were sent by certified mail and another 88 with merchandise return receipt or electronic confirmation which require extra handling time and add to the cost.

Required background checks cost an additional \$1,112.11 for Human Resources letters sent out using certified mail and for the postage paid return envelopes. We used electronic receipts instead of the return receipt cards on the certified mail resulting in a savings of \$1,120.28.

The cost to mail lost and found packages decreased this year to \$309.53 (a savings of \$98.83) although the number of packages sent remained nearly the same at 114.

\$350.13 was spent mailing 32 packages of fishing permits to vendors for them to sell.

A total of 2,694 informational packets were mailed by bulk mail amounting to a savings to the government of \$452.44 and a savings of \$1,163.22 to Yellowstone's postage budget that would have been spent if we had sent them regular mail. The number of informational packets sent decreased by 435 from the number mailed out the previous year. The availability of information on the web has made a marked decrease in the number requested by mail.0

Another 4,754 pieces of mail were sent out using presorted, automation methods to cut \$6,603.60 from Yellowstone's postage budget and a savings to the government of \$4,509.75. We encourage everyone who has mail that will qualify to send it bulk mail. Time spent doing bulk-mailings is money saved from Yellowstone's postage budget and for us all as taxpayers. Our staff is very conscientious and continually strives to do business in the most cost-effective manner.

Our incoming mail included 47,645 letters, 33,750 flats, and 2,260 parcels for a total of 83,655 pieces of mail that was picked up from the post office, sorted and distributed. All categories were down from the previous year, by a total of 6,370. This figure does not include inter-office mail that was sorted and distributed.

A total of 2,123,057 copies were run on the two high-speed copiers in the mailroom and another 87,560 color copies were made. The majority of the increase was because we printed 142,000 road closure notices for the Madison/Norris road construction project.

A total of 583 pieces of outgoing correspondence were logged into the database then filed into the central files system for the year 2009. This was down by 134 from the previous year showing once again how the use of electronic correspondence has affected items being mailed. Totals were not kept of the newspaper clippings, all employee notices, etc. that were also filed.

Summary

Total incoming mail: 83,655 (decrease of 6,370)

Total outgoing mail through mail meter: 18,768 (decrease of 3,413)

Total outgoing mail sent bulk: 7,451 (decrease of 6,790)

Total color copies: 87,560 (increase of 10,342)

Total black & white copies: 2,123,057 (increase of 686,038)

FY 2009 Summary for Property Management & Supply

Property FY 2009

We did not acquire any items from excess this FY.

In cooperation with the Ranger Division and Xanterra, we processed 8,270 lost and found items. This process involved donations to Montana Rescue Mission, conversion of items to government property and sale of remaining items on the GSA internet auction website.

Reports of Survey (DI-103) & Cert. of Unserv. (DI-103A) NPS (195% increase over FY 08)	227 each
Reports of Survey (DI-103) & Cert. of Unserv. (DI-103A) Xanterra	57 each
Report of Excess Property (SF-120) by lots, including Xanterra	13 each
Report of Excess Property for Sale (SF-126) by lots, incl. Xanterra (72% increase over FY 08)	110 each
Transfer of Property (DI-104) to and from YELL (incoming & outgoing) (185% increase over FY 08)	20 each
Receiving Reports (DI-102) (244% increase over FY 08)	62 each

Status of Barcoded Accountable Property Items:

Formal NPS items	4017 items	Value: \$31,720,197.47
Formal Xanterra items	362 items	6,111,530.53
Informal NPS items	5855 items	5,080,517.96
Informal Xanterra items	1939 items	2,073,754.53
WIIDS Radio Equip. Inv.	1421 items	3,325,730.01
Total items: 13,594	Total Value: \$48,311,730.50	

Sales FY 2009

In FY 2009, we sold 123 lots, for a total of \$114,827.00. These sales were conducted on the GSA internet auction website. **(sale lots increased by 78%)**

Barcodes Issued (does not include Xanterra gov't barcodes for which we do the entry of their formal bar-coded items)

10-1-2008 to 9-30-2009

Formal numbers NP1200116849 through NP1200117000 And NP1200114500 through NP1200114969 (168% increase over FY 08)	622 each
Informal numbers NP1200114012 through NP1200114229 (4 in this range were voided and not counted) (50% increase over FY 08)	<u>214 each</u>

Total barcodes issued for FY 2009..... 836 each

Supply FY 2009

Shipments received and processed (does not include deliveries made by local companies such as parts stores, lumber deliveries, steel deliveries, etc.)

FedEx (ground)	1,757 packages
FedEx (air)	794 packages
United Parcel Service	8,050 packages...(of these, 2,691 were NPS Uniforms)

Motor Freight 545 pallets

United States Postal Service 261 packages

TOTAL 11,407 (10% increase over FY 08)

Forklift 96 hours

Workload statistics for FY2009 included:

Travel Vouchers	1388
Training Forms	48
Permanent Change of Station Travel Vouchers	16
Back-country Claims	363
Bills of Collection	547
Official Receipts	284
Pre-Authorized Debits	411
Deposits (both fees and administrative)	192 (totaling \$15,564,578.15)
Income Transfers (credit card income)	22
Third Party Drafts issued	676 (totaling \$198,292.04)
Excise Tax refund reports	5 (totaling \$19,211.98)
Utility payments	479 (totaling \$1,470,930.96)
Miscellaneous vendor payments	419 (totaling \$100,243.65)
GSA Rental payments	12 (totaling \$223,352.42)
GSA Fuel reimbursements	12 (totaling \$66,241.80)
GSA Work order payments	8 (totaling \$2,640.41)
AD Payments (incidental employees)	7 (totaling \$12,282.47)
Tort Claims	10 (totaling \$2,984.32)
Quarters to Account ETs	6 (totaling \$128,731.56)
OAS Payments	46 (totaling \$632,592.85)
Number of Charge Card Holders	394
Number of Accounts tracked	941
Number of Fund Sources Managed	21

FY 2009 Annual Stats for Contracting

Information abstracted from the FY2009 PR Log

	#Actions	Amount	Warrant Level
Jeff Sneddon	29	\$617,225	III
John Chaney	110	\$18,838,391	II
Sharon Skelton	5	\$51,500	Pending
Andy Fox	72	\$5,591,669	I
Andrea Brew	307	\$ 1,149,394	I
Patty Oestreich	487	\$3,840,392	I
Colleen Athas	27	\$46,516	I
Tina Holland	82	\$3,840,392	N/A
Other MABO COs	26	\$799,881	Varies
TOTALS	1145	\$34,775,360	
< \$3000	614		
\$3001-\$25,000	370		
\$25,001 - \$100,000	107		
> \$100,000	54		
TOTALS	1145		

Concessions Management

The Division of Concessions Management administered contracts for sixty-two businesses operating inside Yellowstone National Park in 2009. The division ensured safe, appropriately priced, high quality services and activities for park visitors.

Staff

The division had a professional staff drawn from a variety of backgrounds. Members were requested to sit on national task forces, serve as instructors in National Park Service (NPS) training, and provide leadership and guidance at national meetings and to the staffs in Washington, the regional office, and other parks. Staff and associated staff positions included the following:

- Chief, Business Management Division, GS-1101-14 (Jennings)
- Concessions Management Specialist, GS-1101-13 (Murphy)
- Concessions Management Specialist, GS-1101-12 (Reinhart)
- Financial Analyst GS-1101-11 (Gallagher)
- Architect GS-0801-11 (Dawson)
- Concessions Management Specialist, GS-1101-11 (McAdam)
- Concessions Management Specialist, Database Management, GS-1101-09 (Smith)
- Concessions Management Specialist, GS-1101-09 (Williams)

- Seasonal Administrative Assistant GS-5 (Good)
- Sanitarian /Public Health Service (Larsen)

Four Major Concession Companies

Four major concession companies operated inside the park: Xanterra Parks & Resorts (XPR), Delaware North, Parks & Resorts (DNC), Medcor, and Yellowstone Park Service Stations (YPSS). The four major companies along with the winter operators (snowcoach and guided interpretive snowmobile tours) and summer backcountry outfitters and guides earned in excess of \$100 million in gross receipts in 2009.

XPR provided lodging, food and beverage, merchandising, transportation, marina, and other general visitor services. XPR operated under a five-year concession contract executed on December 1, 2005, that will expire on November 30, 2010.

DNC operated the Yellowstone General Stores, offering food service, groceries, and merchandise. Its contract was executed on January 1, 2003, and expires on December 31, 2018.

Medcor continued to provide medical services within the park and operated under an extension in 2009 while a prospectus was developed and contract awarded. The new 10-year contract with Medcor was executed on January 1, 2010, and expires December 31, 2019. Medical services were critical to the park visitors and essential to park employees and residents of the nearby area. XPR and YPSS provided needed monetary support to the Medcor contract to ensure services were available to their employees. Future concession contracts for medical services in parks may not be economically feasible.

YPSS offered gasoline, garage, and towing services throughout the park. Its contract was executed on November 1, 2008, and expires on October 31, 2018.

All four concessioners provided visitor services throughout the year. XPR operated over 250 days and DNC had at least one store open 363 days. Medcor provided medical services at Old Faithful and Lake for 150 days and at Mammoth throughout the entire year. YPSS provided staffed stations for 165 days and instituted pay-at-the-pump gas services at all stations to ensure gasoline was available year round.

Other Concessioners

Thirteen businesses offered guided interpretive snowcoach tours, 21 businesses offered guided interpretive snowmobile tours, and 46 offered backcountry outfitting and guide trips.

Snowcoach operators were under 10-year contracts issued in 2004. Backcountry outfitters and guides operated under 10-year concession contracts, also issued in 2004. Backcountry operators offered both overnight and day trips and provided a wide range of services. Some operators provided a very few trips in the park (two day trips per year) while others provided extensive visitor services in excess of 50-day trips and 20 overnight backcountry trips.

Commercial Use Authorizations

The park issued 158 commercial use authorizations to operators providing visitors incidental business opportunities originating and terminating outside the park boundaries. The provided services include guided fishing, backcountry day-hiking, towing, photography and artist workshops, front country interpretive tours, and wildlife tours.

Public Law 105-391 changed Individual Business Plans (IBP) to Commercial Use Authorizations (CUA) and regulations have not yet been issued. CUAs have been under a moratorium for the last 17 years. In 2009, a waiting list of approximately 185 businesses was maintained in the division. The moratorium is in place pending the development of a new commercial use authorization plan, but the park has lifted the moratorium on transportation services and towing because of their minimal impact on park resources.

Assessment, Repair, Maintenance, and Improvement of Government-owned / Concessioner- Assigned Facilities

NPS-contracted condition assessments were completed on approximately 20% of the concessioner-assigned buildings in the park, a schedule that allows the park to complete comprehensive assessments on the building within a 5-year cycle. The goal of conducting these assessments on a location basis resulted in lowered contracting fees and allowed the NPS to take a strategic look at facilities and planning of developed areas. The assessments included facilities ranging from the Old Faithful Inn to storage sheds and the resulting data was entered into the NPS FMSS system. The estimated replacement value of concessioner-assigned facilities was \$500 million.

Concessions facilities improvement program and repair and maintenance reserve funds were essential to preservation of the over 900 concessioner-assigned facilities many of which are historic. Major renovation occurred at the Old Faithful Inn with structural, seismic and room reconstruction completed on the Old House East and West Wings. Both NPS and concessioner funds were used to complete the project.

XPR and DNC submitted annual projects aimed at curing identified facility deficiencies. Both concessioners also developed a five-year strategy to identify projects to be funded with repair and maintenance reserve and capital improvement funds, as identified in their concession contract facility improvement programs.

XPR submitted annual and five-year maintenance plans outlining their component renewal, cyclic and routine maintenance projects. The NPS reviewed these plans and worked with XPR to prioritize projects. These plans were critical in curing deficiencies identified in the comprehensive condition assessments and through periodic evaluations.

DNC completed renovation of the Tower Falls Store, Lake General Store. Both stores will be completed for occupancy in 2010. Renovation included researching and returning the stores to a historic concept, including structural review, replacing flooring, and renovating bathrooms, merchandise space and eating areas.

Litigation and Snowcoach and Snowmobile Operators

The continued litigation in federal courts on the winter use of snowcoaches and snowmobiles in the park affected both snowcoach and snowmobile operators in 2009. Current rules allowed 720 snowmobiles per day and 78 snowcoaches. Each snowmobile and snowcoach operator had a maximum daily allocation of trips in the park.

Maintenance & Facility Management

Environmental Issues

The comprehensive greenhouse gas inventory, which was completed in 2007, continued to help identify goals for the park's environmental program. Currently, park staff is working with the Yellowstone Park Foundation to foster partnerships that will result in financial support for instituting identified sustainability initiatives.

- In 2009, Yellowstone National Park achieved an 80 percent diversion rate from the landfill. This was accomplished through the following successes:
 1. West Yellowstone Compost Facility: This facility accepted 2319 tons of waste in 2009 and produced approximately 1,400 tons of compost.
 2. Recycling: In partnership with all concessioners, the park recycled 1,889 tons of commodities, including: 267 tons of cardboard, 86 tons of paper, 14 tons of aluminum/steel, 118 tons of glass, and 41 tons of plastics. Additionally, over 250 tons of tires were recycled and 25,000 propane cylinders were diverted from the waste stream.
- Alternative Fuels: In 2009, Yellowstone National Park continued its use of bio-based fuels for all vehicles. Through calculations verified by the Montana Department of Environmental Quality, the park, by using these alternative fuels, reduced carbon dioxide emissions into the atmosphere by 522 metric tons in 2009.
- Hybrid Vehicles: Yellowstone and Toyota continue to foster a very successful relationship resulting in thousands of visitors being informed and educated about the latest in hybrid technology. Yellowstone National Park accepted an additional five hybrid vehicles from Toyota in 2008. Yellowstone now has over 17 hybrid vehicles.
- Employee Ride-Share Program: Approximately 45 employees participate in a Ride-Share Program that helps reduce fuel consumption, improve safety by decreasing traffic on roads, and ease parking constraints in the park. During 2009, the bus logged more than 10,000 miles transporting employees to and from the workplace. The bus is fueled with bio-diesel.
- Green Cleaning Products: In 2009, the park purchased more than 600 gallons of environmentally preferable products.
- Renewable Energy: During 2009, the Lamar Buffalo Ranch obtained 78 percent of all its electricity from the sun through a photovoltaic system. The Lewis Lake Visitor Contact Station and ranger residence continues to use solar energy, reducing the need for a propane generator.
- Fleet Operations: Through a generous donation from Michelin Tire, the park converted selected trucks to more energy efficient tires. This has proven to substantially reduce greenhouse gas emissions in addition to fuel costs

Yellowstone's Environmental Coordinating Committee (YECC): This eight-member group is responsible for guiding and tracking the park's overall environmental programs. Additionally, the committee sets goals, tracks progress/ milestones, and ensures consistent messaging to all employees.

ROADS

- Spring opening of the park, including Beartooth on time.
- 10 miles of Cold in Place Recycle on South Entrance Road
- 20 miles of chip seal in Yellowstone National Park.
- 20 miles of chip seal in Grand Teton National Park.
- 20 miles of chip seal in Big Horn Canyon NRA.
- Overlay portions of lower Mammoth housing area.
- Transport materials for District operations (sanding material and mix)
- Transport six trailer houses for disposal from the interior of the park.
- Transport sludge (250 tons) from District's treatment plants to proper landfills.
- Transport 200+ tons of non recyclable materials from the park to proper landfill.

Federal Lands Highway Program:

E-Communication – A weekly, updated, road construction flyer was emailed to the park's concessioners, chambers of commerce, state travel bureaus, newspapers, motels, other federal agencies (~90 recipients), plus NPS park employees.

- **Norris- Madison Phase 3** - Construction started in the spring with new decking and repairs to the structural support of the Beryl Springs Bridge. The large Gibbon Falls slope was cut back, material removed and the area widened for construction of the roads, overlook and parking area. This work required closing the road on August 17, 2009, through the end of the season.
- **North Rim Drive, Grand Canyon of the Yellowstone** – Traffic flow pattern was reversed for the first time since reconstruction was completed in FY08.
- **Northeast—Cooke City** – The reconstruction of the road beyond the park boundary and the rehabilitation of the park road was completed in 2009.
- **Isa Lake Bridge**—a temporary repair to the bridge supported the section affected by the broken log piers near the east end of the bridge.
- **Design of Future FLHP Road Projects** for the Lamar River Bridge, Tower Junction to Chittenden Road and Norris to Golden Gate Road continued.

Other Projects

Vegetation:

- **Stephens Creek Nursery** – Propagated 4,353 potted grasses, forbs and shrubs for use on construction projects: East Entrance road, Canyon Rim roads, Artist Point, West Entrance Station, Gibbon River road, and other projects. The park's nursery provided nine large limber pines and four cottonwoods for the newly completed Mammoth Justice Center.
- **Historic Officer's Row Cottonwoods** - Through the Yellowstone Park Foundation (YPF) funded Mammoth Hazard Trees project, members of the Olmsted Center for Landscape Preservation crew performed condition assessments of these historic trees and removed five of the poorest, decayed, hazard trees. The park's landscape crew planted five replacement cottonwood trees grown from eight year old cuttings at the Stephens Creek Nursery.
- **Wildland Seed Collections** - 67 collections were made from 29 species totaling 54 pounds.
- **Montana Conservation Corps** – Crew was utilized for seven days to pull weeds and collection.

Resource Stewardship

Budget and Personnel

The Yellowstone Center for Resources was allocated a FY2009 base operating budget of \$5,298,700 with a staff of 76 full-time-equivalent employees. This base allocation was 57% of YCR's total FY09 budget. Additional monies came from Recreation Fee Demonstration funds, the Fishing Fee program, the Federal Lands Highway Program, the NPS Servicewide Consolidated Call, private sources, other National Park Service funds, and other federal funds. Sixty-two assistance agreements and task orders were processed in FY09, for approximately \$2,854,400 in partnership agreements activity.

Natural Resources

Bioblitz

Although dozens of researchers have studied Yellowstone's charismatic megafauna and life in its unusual geothermal features, little is known about most of the thousands of species in the park. As a start in filling that gap, more than 125 volunteer scientists participated in the park's first "bioblitz" during a 24-hour period starting on August 28, 2009. While the number continues to grow as additional specimens are identified in the lab, their field work has resulted in the identification of more 1,100 species, including 80 bird species and the discovery of a previously unreported graminoid, little ricegrass (*Piptotherum micranthum*).

Air Quality

No National Ambient Air Quality Standards were exceeded in Yellowstone in 2009 for the three measured criteria pollutants: ozone, particulate matter, and carbon monoxide. The draft Air Quality in National Parks 2009 Annual Performance and Progress Report indicated that air quality neither deteriorated nor improved in the park from 1999 through 2008. Nitrogen deposition, however, continues to be of significant concern because it is occurring at levels known to be harmful to sensitive resources, including alpine areas, wetlands, arid areas, and grasslands. The nitrogen deposition results from emissions from vehicles, power plants, industry, agriculture, and fires.

Air quality is also monitored at the West Entrance and at Old Faithful during the winter because of concern about the effects of oversnow vehicles. The combination of fewer snowmobiles entering the park and reduced emissions by snowmobiles because of the "Best Available Technology" requirement has greatly reduced carbon monoxide and particulate matter concentrations since 2003. However, although air quality in the park meets Environmental Protection Agency standards for protection of human health, carbon monoxide levels are sometimes above natural regional background levels in areas near vehicle routes, especially during the winter.

Geology

Compared to a range of 872 to 3,172 earthquakes per year from 1995 to 2008, about 1,582 earthquakes were detected in the park in 2009. An earthquake swarm occurred at the north end of Yellowstone Lake from December 26, 2008, to January 8, 2009, during which there were 811 earthquakes in the range of M0.5 and M4.1. Park staff at Lake felt many of the 21 quakes that were larger than M3.0; the largest was M4.1.

No basin-wide changes in geothermal activity were noted in 2009. The Old Faithful eruption interval remained at 90 to 91 minutes and Steamboat Geyser did not have a major eruption. Echinus Geyser at Norris went into a period of quiescence, with only one eruption during the year, on December

7, 2009. Hydrothermal explosions continued at Wall Pool in Biscuit Basin, where at least nine were reported.

Work continued on the park's geothermal monitoring program with progress made in documenting the status and trends of the geothermal system by measuring the total amount of thermal water and the total heat output for selected geyser basins. Aircraft and helicopter thermal infrared images are being used to document natural and anthropogenic changes in the hydrothermal areas.

Vegetation

Inventory and monitoring. Park staff has met the servicewide inventory and monitoring goal of documenting at least 90% of the park's 1,346 vascular plant species and incorporating the information into the NPSpecies biodiversity database, which now includes the approximately 10,130 specimens in the park's herbarium. During the 2009 field season, at least 76 vascular plant specimens were collected for addition to the herbarium.

To prevent impacts on rare plant populations, park staff conducts surveys prior to construction projects, trail re-routes, and other activities that will disturb the soil. In addition to complying with statutory requirements, these surveys collect valuable data: 162 sites were documented during 2009 for the GIS layer of Wyoming species of special concern and plants that are rare in the park. Summer fieldwork for Federal Highway Administration projects took place primarily in the Old Faithful area, where 600 sites containing rare species have now been documented. Park staff also began rare plant surveys and wetland delineation for the Lake development area.

Nonnative plants. No new nonnative species were reported in the park in 2009, but many of the 218 known established nonnative species continued expanding their ranges. A total of more than 7,100 hours were devoted to exotic vegetation identification and control by 25 members of the park staff, 6 Student Conservation Association interns, 6 full-time summer volunteers, 4 Montana Conservation Corp crews, and a crew from the NPS Exotic Plant Management Team, and dozens of other individual volunteers and groups. Of the approximately 15,571 acres in the park surveyed for invasive plants during 2009, 4,893 acres contained weeds. A total of 137 acres in the park were treated for invasive plants.

With assistance from a contractor provided by the Greater Yellowstone Coordinating Committee, park staff conducted 38 inspections for invasive plants at sand and gravel pits in the greater Yellowstone area, resulting in the approval of eight pits for use of their material in the park. Park staff and the GYCC also worked with seven cooperative weed management areas to map and treat weeds on land adjacent to the park, with special focus a new arrival in the area, dyer's woad (*Isatis tinctoria*); monitor biological control release sites; and support weed education efforts. Resource management staff inspected hay entering the park on vehicles and inspected and cleaned vehicles used by wildland fire operations.

Gardiner Basin restoration. As part of the long-term project to restore former agricultural fields along the Yellowstone River corridor inside the park's north boundary, 50 acres were treated with herbicides and seeded with preparatory cover crops with financial support from Recreation Fee Demonstration funds. The sites are fenced to exclude wildlife while native vegetation is re-established.

Aquatic Resources

The top priorities for the park's Fisheries Program are the preservation of Yellowstone cutthroat trout in Yellowstone Lake and restoration of fluvial populations of native trout, many of which have been lost because of nonnative species introductions.

Yellowstone cutthroat trout preservation. The YCT population in the Yellowstone Lake ecosystem has declined substantially since 1988 as a result of the presence of nonnative lake trout that prey on it and compete with it for food, the exotic parasite that causes whirling disease, and low water flows caused by a series of drought years. Lake trout appear insusceptible to the whirling disease that has severely reduced cutthroat trout abundance in Pelican Creek, a tributary to Yellowstone Lake. Although approximately 38% of the YCT in the 2009 catch were greater than 330 mm in total length, what has been missing in recent years are fish in the 200 to 250 mm range fish that will continue into adulthood.

Lake trout removal. About 450,000 lake trout have been removed from Yellowstone Lake since the effort began in 1995, including more than 100,000 in 2009. The largest lake trout recorded in the park (24.3 pounds) was caught in 2009. To augment the lake trout removal efforts of Yellowstone staff, the National Park Service contracted with Hickey Brothers Fisheries, LLC, of Baileys Harbor, Wisconsin, to use their research vessel, which can set 18,000 to 27,000 feet of gill net a day in Yellowstone Lake. During their three-week trial period in 2009, they caught more than 14,400 lake trout.

YCT restoration on the northern range. As a result of recent invasions of Slough and Soda Butte creeks by rainbow trout, in 2009 plans were developed to save the YCT in these drainages, including the possible construction of fish barriers in both creeks. As in past years, park staff participated in a multi-agency effort that has significantly reduced the brook trout in Soda Butte Creek.

Westslope cutthroat trout. After receiving piscicide treatments to remove the nonnative fish, High Lake has been stocked annually since 2007 with westslope cutthroat trout from the two known genetically pure westslope cutthroat trout populations in the park and Upper Missouri River brood stock from a hatchery. Subsequent monitoring indicates that the stocking has been successful. An abundance of fry were visible in the inlet streams and various locations around the lake margin, adult fish were seen in the littoral zone feeding on aquatic invertebrates, and otters and other wildlife that feed on fish have returned. In preparation for westslope cutthroat trout restoration in the East Fork Specimen Creek below its outlet from High Lake, a large amount of concrete packed to the site on mules in 2009 was used to halt the erosion that had begun on the creek bank and improve the integrity of the fish barrier that has been constructed there. The piscicide treatments applied in 2008 and 2009 to remove the nonnative fish and hybridized westslope cutthroat trout from the creek appear to have been successful and stocking of the creek with westslope cutthroat trout are expected to begin in 2010.

Arctic grayling. Competition from introduced fish species eliminated the fluvial Arctic grayling that were native to park waters by the 1950s, and the lower reaches of Grayling Creek, where grayling were most abundant, were submerged by the completion of the Hebgen Dam. The uppermost reaches of Grayling Creek, considered a potential site for fluvial grayling restoration, are occupied by brown trout and hybridized cutthroats. Interagency efforts were expanded in 2009 to survey most of the stream's tributaries and headwaters and collect high-resolution fish composition, distribution, and genetic data.

Aquatic nuisance species. In addition to lake trout, two nonnative species are having a significant detrimental effect on the park's aquatic ecology: the New Zealand mud snail and the parasite that causes whirling disease in fish. Concern for zebra and quagga mussels invading the park continues to grow as other parks are now spending millions of dollars to control infestations. Park staff has increased their vigilance in attempting to intercept watercraft from source locations and educate visitors about the problem, and they purchased a mobile cleaning unit in 2009. In December, a new invasive species was discovered in the Boiling River soaking area adjacent to the Gardner River. The red-rimmed melania, *Melanooides tuberculatus*, is a small snail native to tropical Africa and Asia that was imported to the United States by the aquarium trade starting in the 1930s. It has become well-established in rivers from Florida to Texas and appeared more sparsely elsewhere. The possible impacts on the park's native invertebrates are not known. Studies are currently underway to determine the species' distribution within the park.

Water quality. Water temperature, dissolved oxygen, pH, specific conductance, turbidity, and total suspended solids are monitored monthly at 11 stream and 7 lake sites in the park. Chemical parameters are collected from 10 stream sites. In 2009, three of the stream sites did not meet Environmental Policy Act and/or state standards for pH, turbidity, or temperature in at least one monthly sampling. However, these exceedences are likely the result of natural rather than anthropogenic factors. Many stream sites have upstream thermal inputs that affect pH and water temperature.

As a result of elevated metal concentrations from previous mining activity upstream of the park, dissolved and total metals (arsenic, copper, iron, and selenium) in the water and sediment of Soda Butte Creek are measured at the park boundary during its annual high and low flow periods. Although the metal concentrations appear negligible, the water is at risk from upstream contamination during an extreme flood event. Samples taken from the site at Soda Butte Creek exceeded EPA and state standards for

dissolved iron during one 2008 visit and two visits in 2009. State and federal agencies are participating in a long-term plan to remove the mine tailings from the streambed.

Bears

Bear foods monitoring. The annual availability and abundance of native bear foods has a strong influence on grizzly bear cub production and survival, and the number of incidents in which bears attempt to obtain human anthropogenic foods. Park staff monitors the availability of some key grizzly bear food sources: winter-killed carcasses, spawning cutthroat trout, and whitebark pine seeds. In 2009, bear foods were abundant throughout the park. Spring surveys found that ungulate carcasses were abundant on the northern range. Although very few spawning cutthroat trout were counted in tributary streams of Yellowstone Lake during stream surveys, bears around the lake found other natural foods. In late spring and early summer, grizzly bears preyed extensively on newborn elk calves. A wide variety of roots and vegetal bear foods were available throughout the summer. The abundance of whitebark pine seeds, available in the fall, was approximately twice the long-term average.

Bear-human conflicts. The good food year for bears in combination with sanitation practices intended to prevent bears from obtaining human foods and garbage helped limit the number of bear-human conflicts in the park to two in 2009. Both incidents resulted in damage to unoccupied tents in backcountry campsites, one by a black bear and the other by a female grizzly bear accompanied by a yearling. No bears caused human injuries, obtained human foods or garbage, or had to be relocated or euthanized in the park during the year. Fifteen grizzly bears and one black bear were captured and radio collared to monitor bear cub production, survival, home range sizes, activity patterns, food habits, and habitat use. About 10% to 15% of the grizzly bears in the greater Yellowstone area are radio-collared.

Grizzly bear reproduction and mortality. The number of female grizzlies in the park that produce cubs has been relatively stable for more than a decade, suggesting that the park's grizzly bear population may have reached ecological carrying capacity. In 2009, 11 female grizzlies in the park had a total of 23 cubs. The two grizzly bear mortalities recorded in the park in 2009 both appeared to result from natural causes.

Status of the greater Yellowstone grizzly population. All demographic measures required for delisting the greater Yellowstone area (GYA) grizzly bear population as a threatened species under the Endangered Species Act, including the number of reproducing females, distribution of reproducing females, and mortality rates, were met in 2009. The estimated GYA grizzly bear population was 579. Although the U.S. Fish and Wildlife Service concluded in 2007 that the greater Yellowstone area grizzly bear population had recovered sufficient numbers and distribution to be removed from the list of threatened species under the Endangered Species Act, a lawsuit filed by the Greater Yellowstone Coalition led to a court order in September 2009 to relist the species. The judge ruled that the multi-agency conservation strategy for grizzly bears in the greater Yellowstone area did not provide adequate regulatory mechanisms for ensuring the population's long-term survival, and that the USFWS had not adequately addressed the long-term impacts of climate change and other factors on whitebark pine seeds, an important bear food. The USFWS is consulting with the Department of Justice to decide whether to file an appeal.

The Interagency Grizzly Bear Study Team, which has representatives from the NPS, the USFWS, the U.S. Forest Service, the U.S. Geological Survey, and the states of Idaho, Montana, and Wyoming, continues to monitor population numbers, distribution, habitat use, reproduction, and mortality.

Birds

With the removal of the peregrine falcon and bald eagle from the federal list of endangered and threatened species, no listed bird species reside in the park. However, bird monitoring in Yellowstone continued to focus on species of special interest in 2009. In addition to ground surveys, four aerial surveys were conducted from May through August to help monitor the nesting of bald eagle, osprey, trumpeter swan, and common loons.

Peregrine falcons. Of the 23 known eyries monitored for evidence of breeding, 19 were occupied by a breeding pair, 14 of which fledged a total of 28 young.

Bald eagles. Of the 15 located bald eagle nests, six fledged a total of eight eaglets. The nine nests that did not produce fledglings were located in the Yellowstone Lake area, where reproduction has decreased in recent years, possibly because of reductions in cutthroat trout abundance or because of human disturbance.

Osprey. Of the 27 located osprey nests, 13 fledged a total of 28 young. The park's osprey population has been declining for the last decade. Only four osprey pairs nested on Yellowstone Lake and, like the bald eagles nesting there, none produced fledglings. A study to examine the availability of fish and the nest success of osprey and bald eagles in the Yellowstone Lake area in comparison to other parts of the park.

Trumpeter swans. Both of the two swan nests located in the park during the breeding season failed during the incubation stage for unknown reasons in 2009. Because of the park's low trumpeter swan population and productivity, starting in 2010, any area where swans are observed nesting will be closed to public access until August 15. The midwinter survey of the park, Paradise Valley, and Hebgen Lake counted a total 144 swans; this includes trumpeter swans that have migrated into the area from Canada for the winter. The number of swans in the park was thought to be 90, compared to an average winter count of 161 from 2002 to 2007.

Common loons were surveyed at 11 previously occupied sites in July and August. Although the adult population observed in the park has remained stable, the number of nesting pairs and fledglings has decreased since 1987.

Other surveys and studies. Park staff conducted the annual survey of colonial nesting birds on the Molly Islands, continued a study of willow-songbird relationships that was initiated by Montana State University to establish a long-term songbird dataset, and set up transects to conduct surveys in areas that had recently undergone forest fire. During the annual breeding bird survey, which is an international effort to track population trends over time, 79 species and 1,844 birds of 79 species were documented on three routes in the park.

Ungulates

Bison. Park staff participated for the 10th year in the Interagency Bison Management Plan with the state of Montana and the U.S. Department of Agriculture Animal and Plant Health Inspection Service and Forest Service. The plan is designed to manage the risk of brucellosis transmission from bison to cattle, conserve the ecological role of the bison population in the ecosystem, and allow for gradually increased tolerance of bison outside the park on national forest land. Yellowstone National Park served as the lead agency this year in coordinating and documenting interagency actions in carrying out the IBMP. Although few bison migrated to lower elevation ranges along the park boundary year during the winter of 2008–2009, approximately 580 bison approached the west boundary in the spring, resulting in up to 400 bison on ranges outside the park in mid-May. A large interagency operation moved the bison back within the park and no bison had to be removed to meet brucellosis risk management goals in 2009. One bison was harvested outside the park in Montana by a licensed hunter. The population size was estimated at 3,300 during the summer of 2009.

Elk. Yellowstone's largest elk herd winters on range along and north of the park's Montana boundary. The Northern Yellowstone Cooperative Wildlife Working Group, which includes park staff and representatives from Montana Fish, Wildlife and Parks, the USFS and the USGS, conducts aerial surveys of this northern Yellowstone elk population each winter. The winter count, which was approximately 17,000 in 1995, has fluctuated between 6,000 and 9,000 since 2003 and was 7,109 in 2009. The decline has been attributed to predation by reintroduced wolves, a growing bear population, hunter harvest, and possibly drought-related effects on pregnancy and survival. The state of Montana has reduced the number of antlerless permits issued in recent years so that hunting now has little impact on population size.

Mule deer. Aerial surveys conducted in the spring of 2009 by the Northern Yellowstone Cooperative Wildlife Working Group recorded 2,154 mule deer on the northern range in and outside the park, the third highest count since 1996. While the relative distribution of mule deer across their winter range has remained similar over the last two decades, the population appears to have increased in recent years.

Mountain goats. Descendants of mountain goats introduced in Montana during the 1940s and 1950s have colonized northern areas of the park; aerial counts of goats inside or within one kilometer of the park have increased from 24 to 178 since 1997. The total population in that surveyed area was estimated to be 200 to 300 goats in 2009. This has raised concerns about the apparent effects on native alpine vegetation and competition with the native bighorn sheep. In 2009, a team of biologists and university faculty representing the National Park Service, the Wyoming Game and Fish Department, Montana Fish, Wildlife and Parks, and Montana State University initiated a research project on mountain goat and bighorn sheep ecology to identify areas where bighorn sheep and mountain goats are currently sympatric and where potential future mountain goat range expansion may overlap bighorn sheep ranges. Through a cooperative agreement with Idaho State University, a three-year NRPP-funded project is continuing to evaluate potential mountain goat impacts on alpine vegetation in the northeast portion of the park.

Wolves

Population status. While the total wolf count in the greater Yellowstone area has continued to increase since reintroduction began in 1995, reaching 455 in 2009, the number of wolves in Yellowstone National Park has trended downward since reaching 174 in 2003. As of the end of 2009, 96 wolves were known to be occupying territories located mostly in Yellowstone, and most of them belonged to one of 14 packs which ranged in size from 3 to 17. Intra-pack fighting, malnutrition, and mange are the most likely causes of the decline within the park. Sarcoptic mange is an infectious skin disease caused by a mite that was introduced in the West in the early 1900s to reduce wolf and coyote populations; it is not necessarily fatal but can make an animal more vulnerable to death from other causes.

With a total of more than 1,600 wolves in Idaho, Montana, and Wyoming, the Northern Rocky Mountain recovery areas have met the demographic criteria established for a recovered wolf population, and in 2009 the U.S. Fish and Wildlife Service removed the gray wolf from the endangered species list in Idaho and Montana, which had each prepared wolf management plans that were approved by the USFWS.

Wolf management activities. About one third of the wolves in the park wear radio collars for research and monitoring purposes, including 11 wolves that were captured and collared in 2009. Wolf management activities included closing the area around two den sites to public access and using beanbag rounds and cracker shells to haze wolves in a pack that was frequenting the Mammoth Hot Springs developed area and the Hayden Valley road corridor. For the first time since wolf reintroduction began, a wolf in the park had to be killed because it was approaching people, probably because it had been fed.

Predation. Park staff detected 365 wolf kills in 2009, including 302 elk (83%), 19 bison (5%), and 17 deer (5%), as well as 6 wolves, 4 pronghorn, 3 coyotes, 2 red foxes, 1 moose, 1 bighorn sheep, 1 Canada goose, 1 bald eagle, and 8 unknown prey. Although the number of elk killed per wolf has declined in recent years, the increasing proportion of the elk killed that are bulls (29% in 2009) has kept the kilograms consumed per wolf per day relatively stable since 1995.

Genetics. An analysis of genetic diversity and gene flow in the Northern Rocky Mountain recovery areas was completed in 2009 and submitted for publication by park staff in collaboration with colleagues from the U.S. Fish and Wildlife Service and the University of California, Los Angeles. The degrees to which subpopulations are genetically structured and connected, along with the preservation of genetic variation, are important conservation concerns. This study, which analyzed genetic samples from 555 wolves in the three recovery areas (Greater Yellowstone, Northwest Montana, and Central Idaho), including the 66 introduced population founders, found that the populations had maintained high levels of variation and low levels of inbreeding.

Cultural Resources

Archeology

The University of Montana Archeological Field School. Assisted by YCR staff through an agreement with the Rocky Mountain Cooperative Ecosystem Study Unit, the field school inventoried several areas in the park in 2009. Along the north shore of Yellowstone Lake, where archeological sites and hearth features have been eroding as a result of water level changes and portions of terraces above the lakeshore are expected to be disturbed during future utility work, the participants identified two new precontact archeological sites and documented 13 previously known but inadequately recorded precontact sites. In locations that have been proposed for new or altered parking areas in the park's road improvement program, they documented two previously unknown sites and four known sites.

Developed area inventories. As a result of agreements with the Rocky Mountains Cooperative Ecosystem Studies Unit and the University of Wyoming Anthropology Department, YCR staff assisted the Office of the Wyoming State Archeologist in inventorying sites in approximately 390 acres in and around Mammoth Hot Springs, the North Entrance, and the concession area near Gardiner, Montana, and completing baseline documentation of cultural components in the Old Faithful developed area.

Golden Gate to Norris Junction road reconstruction. With preparations underway to widen a section of the Grand Loop Road that bisects five precontact archeological sites associated with obsidian procurement near Obsidian Cliff, park staff has worked with the Office of the Wyoming State Archeologist and the Wyoming State Historic Preservation Office to develop data recovery plans for the sites. Excavation work has been completed at three sites, from which more than 130,000 artifacts and specimens were collected. Due to the technical excavation procedures required for data recovery, no volunteer assistance was used, but University of Wyoming students were involved in the processing and analysis of the flake stone debitage. Artifacts and geologic specimens have been transported to Laramie for laboratory processing; botanical, soil, and carbon samples have been sent out for specialized analysis. Eventually all artifacts and specimens will be accessioned into Yellowstone's museum collection.

Nez Perce Trail. The 2009 field season was the third in a four-year investigation of the approximately 85 miles of the Nez Perce National Historic Trail, the route taken by the Nez Perce when they fled through the park in 1877 pursued by the U.S. army. Park staff was assisted by three volunteers in surveying and videotaping sites with the most potential, and used metal detectors to locate buried objects that could indicate a former campsite.

Fawn Pass snowshoe cabin. Prior to mechanical fuels reduction, an archeological inventory and National Register testing in the 15-acre area around the Fawn Pass snowshoe cabin documented two known precontact archeological sites and one new precontact archeological site.

Ethnography

YCR staff worked with the interpretive staff to develop a new wayside exhibit on the Nez Perce National Historic Trail that will be installed in the park in 2010. In August, Shoshone-Bannock representatives met with YCR staff to discuss the park's planning process. In September, YCR staff arranged a two-day workshop whose attendees included Superintendent Lewis, Deputy Superintendent Lehnertz, and three American Indians with experience in intertribal and intergovernmental relations: the Superintendent of Mount Rushmore National Memorial, Gerard Baker; William Yellowtail, a Crow who is the former regional director of the Environmental Protection Agency and holder of the Montana State University Katz Endowed Chair in Native American Studies; and Brady Grant, Tribal Historic Preservation Officer of the Turtle Mountain Band of Chippewa. They helped park staff identify ways for Yellowstone to develop an effective tribal relations program and make the park a place that is welcoming to American Indian peoples and cultures.

Historic Structures

Assistance provided by park volunteers, the Montana and Wyoming Historic Preservation Offices, and through agreements with the Montana Preservation Alliance, the University of Montana Anthropology Heritage Resource Program, and the Rocky Mountains Cooperative Ecosystem Studies Unit enabled park staff to address these issues in regard to the park's historic structures at many sites during 2009.

- **Hellroaring and Blacktail suspension bridges:** documentation for determination of eligibility for the National Register of Historic Places prior to repairs.
- **Stevenson Island cabin:** locating and recording of the remains of a cabin used by the caretaker of wildlife kept on Dot Island for display purposes from 1886 to 1907.
- **Backcountry cabins:** determination of eligibility for listing on the National Register and selection of rusted Cor-Ten corrugated steel roofing as appropriate for all backcountry cabins except those contributing to the Fort Yellowstone National Historic Landmark.
- **Mission 66 historic context:** contracting of the historic resource study needed to determine edibility of buildings constructed during the Mission 66 program for the National Register and prepare the Multiple Property Submission.
- **Lamar Buffalo Ranch:** proposal of changes to improve the energy efficiency of three historic buildings at the ranch, including replacement of original doors and modern replica windows with ones having double pane glass and the addition of insulation to the interior walls, floors, and ceilings.
- **Haynes Photo Shop at Old Faithful:** consideration of the findings of a report by an engineering consultant which determined that the building could be properly stabilized if placed on a new foundation. Park staff will conduct further deliberations on the issue in consultation with the Wyoming State Historic Preservation Office in 2010.

Yellowstone Heritage and Research Center

Assisting researchers. The Yellowstone Heritage and Research Center in Gardiner, Montana, houses the park's archives and library collection and most of its museum collections, together including several million items that document the cultural and natural history of the park. During 2009, HRC staff responded to 508 inquiries regarding the archives, nearly half from NPS employees, including on-site visits, telephone, email, and written research requests. They also helped more than 100 researchers with historical photographs and other inquiries about the museum collection; assisted about 1,000 library patrons; and responded to hundreds of questions via phone and email. For the fourth summer, the librarians provided a bookmobile service to make the library's collections and resources more accessible to NPS and Yellowstone Association employees in the park's interior.

Acquisitions. In addition to cataloging almost 68,000 items from the museum collections backlog, HRC staff processed 33 new accessions in 2009, including natural history specimens collected during the park's first bioblitz, several early park souvenirs, and 42 bison mandibles. Collections added to the archives in 2009 included the field notebooks of a former park geologist, Wayne Hamilton; the diary of an 1896 trip to the park; menus from park lodging facilities; oral histories of local residents collected by Gardiner High School students; and a set of concessions business records from the Haynes family. The library added 183 hardcover dissertations relating to various Yellowstone topics.

Collection conservation. Funding from the Yellowstone Association was used to purchase acid-free housing materials to improve the storage of many archival and library documents, including the binding of more than 100 theses and periodicals in the research library. With matching funds from the Yellowstone Park Foundation for an NPS Centennial Challenge project, the cleaning, stabilization, and rehousing of 70 items in the museum collection was completed in 2009. Yellowstone Park Foundation funding also paid for the transfer of 20 reel-to-reel films to DVD while preserving the originals. Funding for NPS Cultural Cyclic projects was used to rehouse several thousand historical photographs, have safety negatives made of approximately 1,500 nitrate negatives, and hire four graduate students as seasonal

employees to inventory the park's collection of archival map and oversized documents. Barbara Cumberland, NPS conservator, returned in 2009 to complete the cleaning of specimens at the Fishing Bridge Museum. Lynn Mitchell, the regional archivist, spent several weeks helping staff improve the management and organization of the archives and plan a park-wide survey of the permanent records held by various offices in the park.

Historical research. The park historian devoted most of his time during 2009 to researching and writing a history of the Mammoth Hot Springs developed area to assist with long-term planning for the area. He also completed a manuscript on the history of the Mount Washburn lookout and continued to work on a long-term project, a book on "The History of Animals of the Greater Yellowstone Region," and to assist park staff and outside researchers in finding answers to their questions about Yellowstone history.

Environmental Quality

A major focus of the Environmental Quality Branch in 2009 was ensuring the compliance of 15 projects funded by the American Recovery and Reinvestment Act of 2009, including construction of a micro-hydro power plant, a wastewater treatment plant, employee housing, and trail repairs. The branch was also involved in

- completing the Environmental Assessment (EA) with a Finding of No Significant Impact (FONSI) for the Lamar River Bridge replacement
- implementing the EA for the Wireless Communication Services Plan through the formation of a committee to review wireless communications requests
- beginning the drafting of the EA for the Norris to Golden Gate road reconstruction project with the goal of avoiding wetlands, thermal areas, and archeological resources while improving parking areas and pullouts
- reviewing the EA for the National Ecological Observatory Network, in which Yellowstone will be participating, to monitor the effects of climate change on biological resources
- assisting other park staff in preparation of the Tower Roosevelt Comprehensive Plan EA and FONSI and drafting the Bison Remote Vaccination Environmental Impact Statement
- completing approximately 40 National Environmental Policy Act Categorical Exclusion documents for projects such as installation of utilities, hazard fuels reduction, and fencing
- completing approximately 50 National Historic Preservation Act consultations with State Historic Preservation Officers for projects affecting historic properties in the park, including upgrades to the Fishing Bridge Museum
- submission of annual reports to the U.S. Fish and Wildlife Service on road improvement and fire-related activities as they could affect threatened and endangered species

The Environmental Quality Branch also continues to work with other park staff to improve how compliance is integrated efficiently into the project planning process.

Professional Support

Spatial Analysis

The Spatial Analysis Center provides a variety of GPS (global positioning system) and GIS (geographic information system) services to park staff and cooperators by interpreting technology and technical data to suit a variety of information needs. Major achievements in 2009 included:

- **Spatial database of park utilities:** staff worked with Maintenance staff and collected data through fieldwork, interviews, and paper plans to map utilities in all park developed areas and link them to the Facilities Management Software System database, including nearly 3,400 water features and 2,000 sewer features.
- **Spatial database of park buildings:** staff worked toward the long-term goal of having an accurate spatial representation of every building in Yellowstone and documenting the location of buildings that

no longer exist for use in comprehensive planning, the Park Asset Management Plan, and the Historic Structures Management Plan.

- **Computer models of developed areas:** staff completed three-dimensional models for the Mammoth, Lake, Tower, Canyon, and Old Faithful areas for use in environmental assessments, including buildings, trees, and terrain. GIS staff also supports the EA process by supplying planners with maps and analyses. Enabling users to view the consequences of different planning scenarios on the landscape increases the likelihood that everyone will understand the proposals and accurately foresee the end results.
- **Exotic plants:** staff worked with Resource Management to improve the quality of the spatial data on exotic plant locations throughout the park and the consistency of reports from different areas, which will improve the analysis of monitoring data and measurements of the efficacy of control efforts.
- **Wildland fires:** staff provided current maps of fires in the park for fire crews, the Public Affairs Office, and the park's website.
- **Project-specific maps:** staff helped produce an analysis of winter forage availability for bison based on satellite and climate data; the proximity of grizzly bears, occupied campsites, and hikers based on data from GPS collars, hand-held GPS units, and the backcountry campsite database; maps of pika habitat, wikiup locations, and areas seasonally closed for bird nesting; maps for the 2009 presidential family visit; and locations of park residences for the 2010 census.

Research Permits

Yellowstone's Research Permit Office issues permits to and monitors the activities of approximately 200 research projects each year, many of them conducted by scientists who want to study the park's geothermal resources, active caldera, microbes, or the large and complex predator-prey system. In 2009, the Research Permit Office assisted 20 research groups in the field, which helps ensure that the participants use minimum impact research techniques and that their efforts do not alter park resources. Among those whose projects addressed issues of particular interest to park management were the entomologists from the research laboratory at Brooks Air Force Base who searched for fleas, ticks, and mosquitoes that can transmit diseases such as plague, rabbit fever, and West Nile virus; and fisheries biologists from the USGS Northern Rocky Mountain Science Center and a biological consulting firm who tested equipment they had developed that can vacuum nonnative trout eggs from their spawning grounds on the floor of Yellowstone Lake without disturbing sediments and cobble.

The Research Permit Office also worked with Greater Yellowstone Science Learning Center staff to design a web-based application that, beginning in 2010, will enable researchers to post their field itineraries online instead of calling each park district to notify rangers of their plans. This will assist rangers and YCR staff in monitoring research activities and communicating with researchers while they are in the park.

Benefits Sharing

Following legal clearance from the Department of the Interior's Office of the Solicitor, the Benefits-Sharing Final Environmental Impact Statement was released to the public on November 27, 2009. The key issue examined in this first-ever servicewide EIS is whether the NPS should share in scientific and economic benefits when researchers make a commercially valuable discovery or invention as a result of their fieldwork in a national park. The EIS presents three alternatives.

- The Preferred Alternative would require researchers who study park specimens to enter into benefits-sharing agreements with the NPS before using their research results for any commercial purpose. Engaging researchers in benefits-sharing agreements could provide the parks with scientific benefits, in-kind services, royalties or other monetary benefits to be used for conservation-related purposes.
- Another alternative would prohibit scientific research using specimens from a national park if associated with the development of commercial products.
- The No-Action alternative would allow research that may lead to commercial products to continue in the parks without any obligation to share the resulting benefits with the NPS.

The decision document for the FEIS is expected to be released in early 2010.

With assistance from the DOI Office of the Solicitor and staff from the Assistant U.S. Attorney's Office, the EIS team also responded to multiple appeals related to the Edmonds Institute 2005 Freedom of Information Act request, which required the review of thousands of documents and responses on tight deadlines.

Science Communication

Through a variety of print and electronic communications, staff contribute to the scientific body of knowledge about the park, discussion of park issues and policies by a variety of participants, and promote resource conservation and visitor enjoyment through improved understanding of ecological issues. The Greater Yellowstone Science Learning Center (GYSLC), which receives support from Canon U.S.A., Inc., through the Yellowstone Park Foundation as well as the Yellowstone Association, has been recognized as a servicewide model for a website strategy for NPS Research Learning Centers and Inventory and Monitoring Networks.

The addition of the Yellowstone Association's mailing list increased the circulation of *Yellowstone Science* to nearly 4,000 in its 17th year of publication. Among the highlights this year was a double issue providing information presented at the 9th Biennial Scientific Conference on the Greater Yellowstone Ecosystem, "The '88 Fires: Yellowstone and Beyond." Other topics included the effects of development and tourism on geyser basins, the discovery of unusual salamanders, and an interview with retired historian Paul Schullery, an analysis of the relationship between willow growth and songbird community diversity, and changes in land use in the greater Yellowstone area.

YCR staff began planning the 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem to be held October 11–13, 2010, at the Mammoth Hot Springs Hotel. The conference theme, "Questioning Greater Yellowstone's Future: Climate, Land Use, and Invasive Species" was developed by the program committee after consultation with the park superintendent.

Resource and Visitor Protection

Resources and Visitor Protection

Budget

	FY07	FY08	FY09
ONPS	\$6,870,600	\$7,596,400	\$8,100,500
ARRA			105,092
Special Use	358,771	323,500	361,841
Resource Damage Recovery	0	0	102,014
Proceeds from Sales	2,708	690	3,602
Reimbursable Accts	394,076	839,349	338,723

Fee Collection	1,420,566	1,466,400	1,396,088
FLREA	234,200	866,430	894,930
Donations	269,978	485,756	231,170
Restitution	27,982	47,494	7,762
Federal Hwy	120,000	62,800	66,973
FIREPRO	1,132,312	1,271,789	2,090,366
TOTAL	\$10,831,193	\$12,960,608	\$13,699,061

Visitor Services Office

RVP fee collection operations include five entrance stations with 11 kiosks, an honor system at Bechler Ranger Station and seven campgrounds totaling 454 sites (open seasonally May to October, except Mammoth which is open all year). Yellowstone conducts a collection business under the authority of Title VIII of the Federal Lands Recreation Enhancement Act of H.R. 4818 (the Omnibus Appropriations bill for FY05).

2009 marks the third year of the *America the Beautiful - The National Parks and Federal Recreational Lands Pass Program*. The pass series includes an \$80 annual pass, \$10 Senior Pass and non-fee Access Pass; the Yellowstone and Grand Teton Park Pass was \$50. Entrance fees were \$25 per vehicle/7 days. Campground fees continued at the same price of \$12 or \$14 a night depending on amenities at the campground.

Fees Collected in 2009

Approximately 80 percent of fees collected remain in the park to accomplish projects the park has been unable to fund through yearly congressional allocations. Projects include road improvements, enhanced accessibility to park buildings and resources and campground and amphitheater upgrades. Most visitors are supportive of fees as long as the majority of fees are retained in the park to help protect the park and its facilities. In 2009 the National Park Service offered free entrance on three weekends in June, July and August; as well as, Public Lands Day in September (these free days reduced annual entrance revenue by an estimated \$400,000).

North	605,248
West	1,335,702
South	713,137
East	427,825
Northeast	213,095
Total Rec Visitation	3,295,187

Campgrounds	\$556,666
Fish Permits	835,000
Boat Permits	24,850
TOTAL FEES COLLECTED	\$1,416,516

North	\$1,773,750
West	3,548,598
South	161,307
East	1,778,855
Northeast	615,840
Bechler	8,135
PLD	188,827
VSO	10,370
TOTAL	\$8,085,682

Investigative Services Branch (ISB)
Criminal Investigations

The Yellowstone Field Office consists of two Special Agents and is the home office of the Assistant Special Agent in Charge. The agents' primary duties have been providing law enforcement services to Yellowstone NP. Duties include; conducting criminal investigations, prisoner transport, court liaison duties for misdemeanor arrests and mandatory violation notices, supervising interns and volunteers, and providing expert training to Rangers. The office initiated and investigated ten felony and three complex misdemeanor crimes in Yellowstone NP. Additionally, the agents responded and conducted two felony investigations in Grand Teton NP and assisted the Intermountain Regional Office with an internal investigation. One of the Yellowstone Special Agents assisted with the security strategy and review at Mount Rushmore NM and is a member of Yellowstone's Special Response Team.

	2009	2008	2007	2006	1990	1976
Part I Offenses	97	181	148	138	161	270
Part 2 Offenses	981	4,109	4,087	4,036	2,760	2,031

Drug Offenses	129	82	128	115	na	na
Violation Notices	2,629	2,094	2,610	2,605	2,417	549
Case Incidents	5,715	5,781	6,359	6,068	4,879	2,358
Court Appearances	313	429	350	374	157	50
Physical Arrests	172	-	-	-	126	29
Mand. Appear. VN's	308	-	-	-	-	-
Traffic Accidents	636	612	593	553	496	420
Personal Injuries	745	735	767	705	554	349
Fatalities	6	2	12	7	7	7
Tort Claims	10	52	47	36	60	22
Auto Burglaries	1	5	4	8	53	73
Firearms Violations	26	25	39	31	29	11
Wildlife Poaching	4	11	5	10	10	na
DUI	62	43	66	56	68	na
Public Intoxication	40	50	75	58	na	na
Minor in Possession	134	122	264	288	na	na
Sale or Gift	21	18	24	25	na	na

to Minor						
Open Container	33	62	96	71	na	na
Alcohol in Closed	6	7	8	2	na	na

Type of Case	#
Sexual Assaults	3
Felon in Possession of Firearm	4
ARPA/Resource Related	1
Larceny	2
Other (Drug, Fugitive from Justice, Fatality Investigation, Failure to Register as Sex Offender)	5

Yellowstone Special Operations Group

The Yellowstone National Park Special Operations Group (SOG) is the Chief Ranger's primary critical incident response organization. It is commanded by Deputy Chief Ranger Nick Herring and assistant commander District Ranger Michael Keator. There are three teams associated with the SOG:

- ☐ Special Response Team (SRT)
- ☐ Crisis Negotiation Team (CNT)
- ☐ Tactical Tracker Unit (TTU)

Yellowstone National Park created a tactical team in response to a 1989 incident at Old Faithful where a gunman took several visitors hostage. Due to Yellowstone's exclusive federal jurisdiction and its remote location, the Chief Ranger at the time directed the establishment of a team that could manage incidents until additional resources arrive. The nearest mutual aid tactical team is located in Bozeman/Gallatin County Montana, approximately 90 miles away. Over time Yellowstone's SRT has increased its operational capabilities, training commitment, and adapted to fluctuating operator membership.

Special Response Team

SRT is the SOG's tactical element, responsible for the tactical management of hostage/barricade incidents, active shooters, high risk arrests and warrants, VIP and dignitary protection, specialized enforcement operations, tactical tracking, and certain wildlife management activities.

<i>Call Out</i>	<i>Comment</i>
Presidential Visit – OF	SRT provided a maneuver and attacking element to the Secret Service Counter Assault Team and presidential motorcade. Operators also assisted the Counter Sniper Team.
Tracking Mission—Grant Campground	Suspect arrested after fleeing into the woods.
Fugitive capture— Snake District backcountry	Suspected arrested on an extraditable felony warrant from California.
Manhunt— Arnica Creek	Subject arrested while attempting to flee on foot after a high speed pursuit and crash.

Communications Center Accomplishments

The Yellowstone Interagency dispatch center continued to facilitate interagency cooperation and communication. The center's dispatchers answered nine 911 lines, eight direct phone lines and the park switchboard. We dispatched on three radio channels with eleven separate repeaters. We monitor over 300 alarm accounts and 63 cameras. In 2009 we answered 10,260 alarm events and the center handled 21,705 calls for service. The vast majority of these calls were for law enforcement purposes. We issued 5,714 case numbers. The center also facilitated park wide operations including handling flight following for 172 research flights, 1,568 maintenance calls for service, 548 road reports were logged, and 169 people on administrative travel were tracked.

Our warrant system continued to be a successful program that was provided to other parks. We continued to provide assistance to FLETC in the tracking of missing/stolen badges within the region. We have continued our MOU with Grand Teton National Park, handling all of their NCIC entries. We assisted other National Park sites with their entries. The center manager provided copies of the Yellowstone Communication Center SOP manual to six other NPS locations.

The Center provided assistance to the American Samoa National Site during the tsunami and earthquake. We provided their Superintendent with a link to the outside world and made the appropriate notifications to all levels and agencies while this event was ongoing.

The center manager has been actively involved in the Department of Interior IMARS program to provide

a service wide records management and computer assisted dispatch program to the entire agency. The center manager assisted three parks who were looking at CAD systems with direction and information on the standards needed for an appropriate CAD system.

The center continued to provide support to ISB and the Federal Magistrate Court.

Corrals

Corral Operations started the year out repairing the 200+ riding saddles and pack equipment used by park staff in the field. NPS stock was wintered east of Clyde Park, MT. on the Grobler Ranch. The snow got tough and Corral Ops spent a lot of time looking for animals that were getting out. We ended up purchasing extra supplements trying to keep these animals on good feed. By mid April, it was apparent that these animals were not going to do well in this situation. All NPS stock was brought back to Stephens Creek, 30 days sooner than normal, and put on hay on May 1. When we gathered the stock, we were missing Tuck, a saddle horse, that had been there the week before. He was found dead. All signs showed he had punctured his abdomen with a stick while jumping a log.

The winter was fairly quiet for Buffalo until mixed groups started showing up at Stephens Creek on April 1 and groups were hazed back till May 21 when they decided to stay. Corral Ops and Trails Animal Packers assisted with hazing operations at West starting May 7. Horses were also issued to West Rangers on this date to assist with this Project.

The second week in May, Corral Ops assisted YCR-Vegetation with their Gardiner Basin Restoration Project. Vegetation purchased a grain drill and Corral Ops used their tractor and seeded barley on 23 acres. The end of September we seeded this 23 acres and another seven acres in winter wheat. Packing season started on May 13 with 11 loads packed for a contractor doing the Snowshoe Cabin Restoration in Hell Roaring.

Other significant events were Rangers Color Guard at the Gardiner Rodeo Parade and the July 4th Parade at West Yellowstone. Horse Patrol-Perimeter Security for President Obama's visit to Old Faithful. On May 18, our faithful barn cat Puss-Puss was dead in the stack yard. She put in many years of service keeping area rabbits and mice at sustainable numbers.

Backcountry Management

	2007	2008	2009
# Backcountry Permits Issued	4822	5090	5638
# People Use Nights	37933	39302	39714
# Stock Use Nights	6412	6173	5503
# Advanced Reservations	1562	1669	1708

EMS & Search and Rescue

Stats Based on a 3 Year Average		
	2009	Avg.
EMS Incidents	799	738
Advance Life Support Calls (includes 31 non-transports)	368	334

Resource and Visitor Protection managed 27 Search & Rescue (SAR) incidents in 2009. 13 incidents “went major” (un-programmed cost in excess of \$500) and two were mutual aid assists to other agencies. Four incidents resulted in fatalities.

Total 2009 SAR related expenditures were \$73,446. Park staff contributed over 1600 person hours to SAR incidents. A large part of the dollar expenditure can be contributed to nine rescues where helicopters were utilized to evacuate victims.

Yellowstone staff continues to provide SAR expertise regionally via search dog capability, avalanche rescue expertise, technical rescue capability, helicopter rescue capability, and all hazard incidents and search management skills.

Personnel in Yellowstone attended and/or instructed over 1534 hours of training related to search and rescue in 2009.

Youth Conservation Corps

Yellowstone’s Youth Conservation Corps (YCC) has continually been an extremely productive and influential Youth Program and the 2009 season was no exception. The outstanding leadership provided by the dedicated YCC staff steered the Environmental Education and Experiential Recreation Programs to new depths and led to the completion of many quality work projects throughout the Park. The commitment and character of the seasoned YCC staff made them strong mentors for the participants of the program.

The program will be undergoing some changes before the 2010 summer season. We will be transitioning over to the Interpretive Division, saying goodbye to our fearless leader for the past 21 years, Steve Sarles and welcoming Mary Wilson as the new Program Manager.

YCC Environmental Education

One of the most important aspects of the YCC program is the environmental education portion, and there is no better classroom than the Yellowstone Ecosystem. The 2009 YCC participants were very lucky to have knowledgeable guest speakers like Kerry Gunther, Bob Landis, Jim Evanoff, Ken Meyer, Bill Hopkins, Bill Burg, Trudy Patton, and Kathy O’ Hern share their passions and particular expertise in park history, biology and conservation practices. The YCC staff also provided students with daily lessons from the program’s Environmental Awareness Curriculum and never hesitated to take advantage of the many teachable moments provided by the Park throughout the summer. Though the work weeks ran Monday

through Friday the experience and exploration was not confined within those days. The weekends provided unique recreation opportunities like; rafting the Yellowstone River, an overnight trip to the Beartooths, our annual YCC Olympics, summiting Electric, Avalanche, Bunsen, Washburn, Sheridan and a number of other Peaks, as well as countless other hikes and backpacking trips around the Park.

2009 was a full, dynamic and challenging year for the RVP Backcountry Trails Program culminating in many successful administrative, initiative and project endeavors. In August, park staff had the honor of welcoming the President and First Family to Old Faithful for a brief visit. Trail Ops staff contributed traffic and barricade management oversight, including construction and demobilization of 240 feet of rustic Buck and Rail fence to maintain crowd control near Old Faithful Geyser while collaborating with the Maintenance Division's Boardwalk crew.

Successful Administrative undertakings included:

- ☐ Participation in the YELL ARRA project team.
- ☐ Participation in the Yellowstone River Trail Task Group and park representation during the access closure process by private parties.
- ☐ Programmatic Trail Maintenance MRA.
- ☐ Participation in the Re-engineering the Employee Safety Committee task group.
- ☐ Undertaking of field-level compliance resulting in establishment of project CEs for three ARRA trail projects.
- ☐ Programmatic Trail Maintenance and Trail Reroute SOPs.

Trails Significant Events

2009 brought the advent of the Nationwide Initiative – The American Recovery and Reinvestment Act (ARRA) which supported several park projects including the creation of those within the purview of RVP's Backcountry Trails Operation. Three projects—"Rehabilitate the Historic Observation Peak Trail", "Repair Deteriorating Trails and Footbridges and "Realign Segments of the Historic Shelf Lake Trail" were submitted to the National Trails panel by the YELL ARRA team and received funding to correct trail deficiencies using NPS and partnering Cooperative Youth crews within the initiative sunset date of September 30, 2010.

As required, all projects underwent full ARRA guideline-directed compliance and documentation processes, which culminated in programmatic Categorical Exclusions generated for the three projects. Due to national directive and implementation issues delaying use of Cooperative groups, the bulk of project work was scheduled for a 2010 completion date. For 2009, NPS Trails Ops staff focused upon and completed the Observation Peak trail project in September, where surface repair, drainage, erosion control, corridor clearing and impacted site restoration work was conducted over the three mile length of trail. Intensive work was also undertaken on several park trails within the scope of the Trails and Footbridges project-where NPS staff and participating volunteers completed structural repairs on treadway and support structures on the Wapiti, Coyote Creek, Beaver Ponds, Claggett Butte, Snow Pass, Astringent/Broad and Pelican Creek trails. In late summer, under the directive of the ARRA hiring authority, seven YCC Leaders were hired to join existing Trails staff in completing fall ARRA project work and end the field season with the aforementioned completions.

The 2009 Backcountry Trail Operations service-day observance of National Public Lands Day was also tied into the Trails and Footbridges project in late September when participating volunteers and NPS staff celebrated the day by addressing erosion, drainage and restoration issues on the Clear and Ribbon Lake loop trails. The project was designed to build off of previous years restoration success's in the spirit of public service and support so well-defined in the ARRA enabling legislation.

The day's celebration was once again enhanced by the wonderful support of NPLD coordinators who provided participants with snacks, drinks, energy and enthusiasm to carry them through the day of hard labor. The group received a general orientation, safety review, and ergonomic stretch session at the trailhead and trail theory/skills orientation at the arrival at the worksite. A great time was had by all during this beautiful fall day and the group was treated to an awe-inspiring backdrop of the smoke columns billowing up from the Arnica Fire.

2009 also brought the fourth year of the Yellowstone Park Foundation Trails Fund Initiative donor-supported trail projects. With the generosity of supporters such as Conoco Phillips, Coca-Cola, Dr. Scholl and numerous other friends of the park, repairs were undertaken at several popular front and backcountry locations with extensive deferred-maintenance needs. Projects of significance included: Fan Creek, Lynx Creek, Wraith Falls (Phase II), and Cascade Network Trail Restoration Projects. Highlights of the projects included the continued construction of long life- cycle masonry structures and the removal of slips/trips/fall hazards at Wraith Falls, the circumvention of beaver caused flooding and erosion-caused damage at Fan Creek, and the replacement/refurbishment of 12 deteriorated and hazardous stock and foot bridges contained within the greater Cascade, Thorofare and South Boundary Trail networks.

The Trails Operation also garnered successful funding submittals from the Montana and Wyoming State Recreational Grant Programs. The Wyoming "Miller Creek Trail Restoration Project" and the Montana "Bliss Pass Trail Restoration Project" supported ten weeks of partnership with the MCC addressing needed corridor realignment, reconstruction and rehabilitation needs in two pristine backcountry locations.

In addition to the usual onerous pack-supported trails projects, numerous interdivisional projects were also served by the skill and prowess of the Trail Operations packing staff. Trails Packers teamed with RVP and Corral Ops staff to participate in the spring bison return to park lands, and to transport personnel, materials and supplies for the YCR Westslope Fisheries project and Geologic survey trips.

Structural Fire

2009 was an exciting year for structural fire. The Arnica Fire came as a surprise while providing opportunities. Providing structural protection at Lake allowed the development of a new structural protection plan. In August, a team of five went to Idaho Falls to compete in the Scott Combat Fire Challenge.

Of the 203 responses, 72% were false alarms. This is a reduction in overall responses as well as false alarms. This is attributed to fire alarm maintenance and awareness on job sites.

The two most active areas were Mammoth and Old Faithful. Mammoth had 43% of the responses with 89. Old Faithful had 27% of the responses with 55.

The academies offered this year included; Defensive Fire Fighter, Fire Fighter 1, Fire Fighter 2, Driver/Operator, Fire Instructor 1, Fire Inspector 1, Fire Officer 1 and wildland refresher. There were a total of 1,058 hours of instruction taught to 67 students. This equates to 128 days of training with over 70,000 student hours.

In 2009 125 fire fighters were trained and equipped. Out of this number, 99 were active with training and responses. Of the active participants 78 were NPS employees and 21 were Xanterra employees.

Wildland Fire

Yellowstone National Park recorded 20 wildland fire starts accruing 11,010 acres burned during the 2009 fire season. Anecdotally, 2009 would be considered an average season regarding the number of wildfire ignitions and above average for acres burned. Three fires were declared natural outs before management action was taken. Seven were suppressed, including three human caused fires, and ten were managed for resource objectives. 17 were less than one acre in size. The Butte, Rainbow, and Arnica fires grew to 180, 15, and 10,700 acres respectively. The Arnica fire, detected by the Mt. Washburn lookout, was the fire event of the season. Burning in the latter half of September, it created a significant fuel break relative to potential impacts of future wildland fires on the Bridge Bay and Lake Areas. It also prompted focused thought on future defensible space and structure protection planning needs.

The year can best be characterized by expansion of partnerships across the spectrum of Fire and Aviation Management activities. Staff members traveled to Little Big Horn National Monument to review agreements and plan future activities. Fire staff from the Crow Nation participated in the deliberations in an effort to renew the Little Big Horn/Crow Memorandum of Understanding. Relationships were formed with members of the forest products industry through the use of contract timber harvesting equipment for post-fire rehabilitation activities associated with the Arnica Fire, specifically road opening and power line right-of-way clearing. The relationship with Northwestern Energy was strengthened through this same effort. Fire science staff collaborated with the National Weather Service to begin automating the Mammoth weather station. The Montana Conservation Corps were again active partners in fuels treatment operations. Ties were strengthened with the Gallatin National Forest through the integration of three GNF firefighters into the Yellowstone engine program to form a combined crew of five individuals. Fire staff from both organizations worked on fuels projects on both units as combined work crews and combined talents to form the Type III Incident Management Team for the Arnica fire.

Interpretation, Education and Partnerships

Budget Summary

The division's base (ONPS) allocation was \$2,942,700. Other fund sources supported a variety of programs and projects. Some funding was tied to multi-year projects such as the planning and design of exhibits for the new Old Faithful Visitor Education Center. Complete itemization of fund sources and programming is reported in other documents.

Staffing

Permanent FTE totaled 20.80, temporary FTE totaled 34.70, for a grand total of 55.50 FTE. The total number of permanent positions was 25, the number of temporary positions totaled 98, and the grand total of positions was 123.

Fiscal year 2009 staffing continued to evolve with retirements, departures, and new hires in the permanent ranks. Staff in the Chief of Interpretation office: Linda Young, Chief; Judy Knuth Folts, Deputy Chief; Joy Perius, Budget Analyst; and Clare Cloghessey and Maurine Hinkley Cole shared the Administrative Assistant position. Michael Stuckey, East District Interpretive Ranger, retired from the NPS in May and the division reorganized into two field Districts. Katy Duffy became the South District Interpreter and Brian Suderman became North District Interpreter (no grade changes). Field district boundaries paralleled the Upper and Lower Loop road system and corresponding developed areas. Megan O'Malley moved from one of two Old Faithful Subdistrict Interpretive Ranger positions in March to Allegheny Portage Railroad National Historic Site (the other had been vacated by Kelly English's departure the previous fall), and Rita Garcia and Barbara Hoppe were hired to fill these two subject-to-furlough positions at Old Faithful. Matt Johnson, Fishing Bridge-Lake Subdistrict Interpretive Ranger, moved to a new job at Biscayne National Park. Ellen Petrick, a Term employee in the Education Branch, moved to a permanent full time job at Curecanti NRA, and Bob Fuhrmann was selected for a one year detail to the park's Comprehensive Planning Office, beginning in June. Beth Taylor filled in for Bob through the remainder of the calendar year, and Matt Ohlen joined the Education staff in September, working primarily in the Expedition: Yellowstone! program. Mary Wilson was hired as the park's first VIP/SCA/YCC Program Manager after returning from a detail to Albright Training Center. Craig Johnson became the permanent full time Web Program Manager, concluding a two year process triggered by the outcome of the Core Operations Analysis process of 2007. Other permanent and term employees and positions remained unchanged from the 2008 reporting period.

General

Park visitation for calendar year 2009 totaled 3,295,187, up approximately 7% from the total for calendar year 2008 and setting an all time record. As 2009 began, the effects of the autumn 2008 crash of the stock market and ongoing severe economic recession may have been the cause of a drop in visitation in the early months, and concerns were widespread that 2009 might see record breaking declines in visitor numbers. However, parks were marketed nationally as ideal low cost vacations, which may have triggered the surge in visitation in the summer months. Data from park concessioners and local/regional businesses continued to point toward less spending by visitors on purely discretionary items, and many more people using lower cost options like camping.

The park hosted a visit by President Obama on August 15. The President's party included his immediate family and extended family members in addition to White House staff and Secretary of the Interior Ken Salazar. The President's visit was declared to be a private family vacation so no official remarks or events took place. The Presidential party arrived in the Old Faithful area via helicopter, drove to the Upper Geyser Basin and viewed an eruption of Old Faithful Geyser, stopped at the lower Yellowstone General Store for ice cream, then lunched at the Snow Lodge conference room before departing via helicopter for the West Yellowstone airport. Staff from the Division along with staff from all other park divisions provided extensive public contact services and assisted with security measures during the roughly two hour period that the Presidential party was in the area. In addition to the Superintendent and Deputy Superintendents, Katy Duffy and Rich Jehle accompanied the Presidential party as they walked to view the eruption of Old Faithful Geyser. Other staff worked behind the scenes to prepare activity and souvenir packs for the younger members of the party. Linda Young and Barbara Hoppe provided Secretary Salazar with tours of the in-construction Old Faithful Visitor Education Center and area around Old Faithful Geyser.

A major road construction project in the Gibbon Falls/Gibbon Canyon area between Madison and Norris Junctions was the focus of much outreach effort with local and regional communities and the general public. This project, which included rerouting a segment of road and construction of a new bridge over

the Gibbon River, caused 30 minute delays and evening closures through the travel season until August 17, when the road closed completely to all travel in either direction. The Division of Interpretation provided significant outreach and public contact services, including staffing barricades at both ends of the construction zone, posting information and updates prominently on the official web site (including an interview with the Chief of Maintenance about the project), featuring the project and its travel impacts prominently in the official park newspaper, developing a handout for use during the closure period, and creating signs and other temporary informal displays parkwide to help travelers plan for delays and closures.

A multi-year effort to develop a parkwide VIP Strategic Plan was concluded early in 2009. As a result, a new position combining the roles and functions of the parkwide VIP Program, the SCA Program, and the Youth Conservation Corps Program was established, and the position with programs was assigned to the Division of Interpretation. 2009 became a year of transition in that the YCC Program was operated by the Resource and Visitor Protection Division for the summer as the newly established position would not be filled in time to assume those responsibilities, while management of the VIP and SCA Programs was assumed by the Division of Interpretation very soon after the reorganization was announced.

The Chief of Interpretation and Education, along with other division staff, spent substantial amounts of time engaged in managing the relationship with the park's cooperating association, the Yellowstone Association (YA). All materials proposed for sale in Association bookstores were reviewed according to established criteria. All courses, tours, or activities offered under the auspices of the Yellowstone Association Institute were also reviewed, and all courses were monitored by NPS staff as part of the ongoing process of ensuring conformity with park priorities, goals and regulations. In addition, the Chief coordinated with the YA Executive Director on a range of short and long term planning activities such as the development of new bookstores in visitor centers that are undergoing construction or renovation. The Chief worked with Senior Management to comment on revisions to NPS policy (D.O. 32) governing the relationships between NPS units and cooperating associations. YA continued its fundraising campaign for its approved infrastructure and marked the opening of its new headquarters building in Gardiner, Montana in May. YA's proposal to purchase a property on the edge of the park's north boundary to be used as an overnight facility for small educational groups was approved with multiple stipulations, including an increase in cash Aid to NPS and limitations on the number of YA-conducted activities in the Lamar Valley – Northeast Entrance area.

Work with the park's primary nonprofit fundraising entity, the Yellowstone Park Foundation, revolved around writing proposals for grants, reporting on approved projects, and assisting with board meetings or special events conducted with donors or prospective donors. Construction of the new Old Faithful Visitor Education Center moved into its second year, with all tracks of the project moving ahead on schedule. Other major projects funded by YPF corporate donors included web features such as web videos, podcasts, and the Old Faithful Live Streaming Web Cam (Canon USA), and Formal Education Programs such as Yellowstone to You (Outreach), Day Use, Scholarships to Expedition: Yellowstone!, Junior Ranger and Young Scientist components, and a restructured and refocused Cross Cultural Exchange Program

Division staff also provided tours and talks for members of the 21st Century Commission during its Yellowstone session in January. The premiere of the Ken Burns series on National Parks in September was celebrated in the park with a live ranger program broadcast from the Widow's Walk of the Old Faithful Inn, and a series presentation in the Mammoth Hotel Map Room and Canyon Visitor Education Center theater, both of which were hosted by division staff. National Public Lands Day also took place during the Burns series premiere and special volunteer activities were planned and conducted by division staff, along with staff from other divisions.

Branch of Interpretive Planning and Media Production

Planning/Project Management

Work on the exhibits and interactive media for the new Old Faithful Visitor Education Center continued throughout 2009. In May, the 100% exhibit plans were received from the contract exhibit planning and design firm, Christopher Chadbourne and Associates (CCA). These documents, consisting of two large construction documents and three large reference packages for graphics, museum collection exhibit items, and text, underwent extensive review and revision before being approved by the Chief of Interpretation and Interpretive Planner. Final exhibit text was written, reviewed, and completed in August 2009 in conformity with exhibit design specifications. Coordination in locating artifacts and photographs, facilitating communications between the architect, exhibit design team, fabrication teams, and park staff was ongoing, along with the submittal, review, and approval of several hundred shop drawings. In July, Pacific Studio of Seattle, Washington was contracted by the Yellowstone Park Foundation to fabricate and install the exhibits. The Interpretive Planner traveled to Pacific Studio offices to review prototypes of interactive exhibits in September. YPF also contracted with CCA for Phase 4 Exhibit fabrication services, including review, consultation, and AV media design. At the request of the Yellowstone Park Foundation, staff provided several tours of the construction site and VEC in progress to donors, board members, and VIPs. Progress reports were also provided to the National Science Foundation and YPF.

There were fewer problems with exhibits in Canyon Visitor Education Center (CVEC) during 2009, possibly as a result of (seemingly) fewer power outages and with ongoing gains in exhibit management through the experiences with troubleshooting since the building opened in 2006 (see Exhibit Program section). Problems with unreliable power were typically managed with power conditioning equipment and surge protection devices and generally required nothing more than rebooting a system. While installing a new film in the visitor center theater in May, the AV system contractor, BBI, corrected numerous on-site AV system issues, although problems with the theater caption board remained ongoing.

In May, CVEC became the first visitor center in Yellowstone to become fully ADA accessible. Audio description was prepared for the two films shown at Canyon: *Yellowstone Today* and *Yellowstone: Land to Life*. Assistive listening devices for in-park movies are also available at Canyon. Overall, exhibits and media continued to draw enthusiastic responses from visitors and scientists alike, and total visitation to CVEC continued to grow.

A new film, “Yellowstone: Land to Life,” premiered at CVEC during Memorial Day Weekend. The film, funded by special project grants from the Yellowstone Association, was contracted for production through Harpers Ferry Center (HFC). HFC film producer John Grabowska was their project lead working with Interpretive Planner Sally Plumb. The film focuses on integral connections between Yellowstone’s geology and ecology. In addition to an audio description version, the film was also translated into four languages: French, German, Spanish, and Japanese. The film is available for purchase as a DVD in park visitor center bookstores, and is also available online through the park’s official web site. By the close of 2009, the film had been selected as a finalist in five film festivals: Sondrio Festival on Parks and Protected Areas, Italy; International Mountain and Adventure Film Festival, Austria; Tegernsee Mountain Film Festival, Germany; Ekofilm Prague, Czech Republic; Euroekofest, Bulgaria. In addition, the film was broadcast nationally by PBS on September 8. During this broadcast, *Yellowstone: Land to Life* was

seen by more than 3 million viewers. It will continue to be shown by PBS several times per year for the next few years.

The Albright Visitor Center was targeted for major renovation to correct structural seismic deficiencies. CTA architects of Billings Montana worked on the various stages of construction document development, targeting completion in early 2010 to coincide with possible American Recovery and Reinvestment Act (ARRA, aka “stimulus”) funding. Staff worked closely with CTA and NPS Project Managers to review floor plans, refine public and administrative spaces, review interior finishes, and complete cultural compliance consultation with the Wyoming State Historic Preservation Office. In coordination with this renovation, some 2,000 square feet of completely new exhibits are being developed for exhibit areas on the main floor and basement. Exhibit planning and schematic design will be accomplished by park staff. A VIP was hired and to conduct exhibit content research on thematic history topics. Staff also worked with Yellowstone Association employees on the design of a dedicated bookstore space to be located on the main floor of the renovated structure.

Continuing maintenance of the Grant Visitor Center included an exterior paint job and replacement of sidewalks and walls to repair cracked concrete. Also, the building addition became the Grant Backcountry Office.

Sally completed a Braille translation of key messages from the park newspaper in her role as the division’s accessibility coordinator, and several dozen copies were produced for distribution at visitor centers. This publication was an experiment, as the need for Braille materials has not been determined.

Interpretive Planner/Project Manager Sally Plumb provided talks and tours to a variety of visitors, international park and government representatives from Egypt, Khyrgystan, and Russia, and such special guests as White House Chief of Staff Rahm Emanuel and family.

Exhibit Program

Outdoor or wayside exhibits number some 350 units and are located along all road segments, in all developed areas, at major features and overlooks, at some backcountry trailheads, and along self-guiding trails. The database of information about exhibit content, known as MIDS (Media Inventory Database System) was reviewed and updated with over 300 entries for all wayside exhibits. Approximately one third or about 110 wayside exhibits were personally evaluated to determine needs for updating or other forms of improvement to educational content, and to note physical conditions and needs for repairs/renovations. A servicewide initiative to eventually enter all interpretive media into the Facility Management Software System (FMSS) was launched. Exhibit Program staff beginning system training in order to enter data for all of Yellowstone’s visitor center, museum, and wayside/trailside exhibits, the single largest inventory in the NPS system. (Future FMSS work will extend to AV media. As of now, publications will not be included.)

Exhibit Specialist Jo Suderman completed the planning, design, and production management of 7 new wayside exhibits interpreting the Fires of ’88 and installed one of these waysides; designed and installed 5 Norris Geyser Basin trailside exhibits providing interpretation, safety, orientation, and accessibility information; and moved an additional 44 new wayside through various stages of planning, design, and production. Jo worked with a commissioned artist who is a member of the Nez Perce tribe on an illustration for the Nez Perce wayside exhibit project, and worked with Maintenance to install new trail leaflet boxes at the following locations: Canyon North Rim (2), Upper Geyser Basin (6), and Fountain Paint Pot (1). Coordination of installations at 15 other parkwide locations continued. Other accomplishments include the design completion for 8 portable Campground and Trails Rehabilitation Donor Recognition signage (2 separate panel designs and custom designed portable frames); the design

and implementation of signs for an experimental Fort Yellowstone Cell Phone Tour; and the design of several posters communicating critical visitor information in the Old Faithful area and parkwide, for the Gibbon Canyon road construction project. She compiled a list of wayside exhibits located on wheelchair accessible trails for use in Yellowstone's new Accessibility Guide.

The Exhibit Program is also responsible for managing and maintaining exhibits in all 10 visitor contact facilities operated by the Division during the main summer season. The combined total of square footage containing a wide variety of exhibits and interpretive media is estimated at 18,000 sf, and work continued to build a more complete database of information about the content, materials, and conditions of these exhibits.

The Canyon Visitor Education Center entered its third full year of operation in FY 2009. Exhibits and interpretive media continued to draw enthusiastic responses while enhancing visitors' understanding of Yellowstone. A professional topographic model artist was hired as a VIP to clean, touch-up, and maintain the Yellowstone model, lengthening the life of this well-loved exhibit. A new lava lamp was installed in the "Hot Spot" exhibit to correct wax discoloration and other issues. Interpretive and maintenance staff continues to learn more about complex mechanical and computer-driven systems, resulting in more efficient seasonal opening and closure of visitor center exhibits.

Low profile exhibits in the West Wing of the Norris Geyser Basin Museum had deteriorated through some 15 years of heavy use. 17 new panels have been planned and designed with updated content and new graphics, and were moved into review.

As noted in other reports, precise counts of visitor use of exhibits are impossible to obtain for many reasons. However, reasonable estimates can be made from a variety of data. Informal observations and visitor comments reveal a high demand and appreciation for exhibits. Based on public use of the park's visitor centers, the numbers of people in major developed areas, and traffic studies, we conservatively estimate that exhibits account for some 13 million visitor contact episodes. Another way of understanding this number is that every Yellowstone National Park visitor is estimated to use at least one exhibit on 4 different occasions during a typical visit. Observation of actual behavior suggests that this number is much higher. Also, visitor's rate exhibits in the highest category of desired services. They are one of the most cost-effective methods of serving Yellowstone's 3.29 million annual visitors.

Publications Program

During FY 2009, Publications Specialist Carolyn Duckworth produced 46 distinct publications. Most work involved updating/revising publications that are used annually and are processed through a cycle of review for changes prior to production. These included four editions of the official park newspaper *Yellowstone Today*, *Yellowstone Resources and Issues 2009*, eight self-guiding trail booklets used at major park attractions such as the Grand Canyon of the Yellowstone and Old Faithful Geyser area, and visitor trip planning guides. During 2009, a major road construction project in the Gibbon Canyon area (between Madison and Norris Junctions) caused major impacts to travelers, especially when this section of road was closed completely to all travel on August 17 and remain closed for the rest of the season. The park newspaper and a specifically produced handout became key elements (along with electronic signs, temporary exhibits, and uniformed staff) in communicating with the public about the closure and alternative routes through the park. In addition, work continued on developing a comprehensive guide to YNP's wheelchair accessible services and facilities, and on a self-guiding tour booklet for the Old Faithful Historic District. New printed materials included a wildlife safety hangtag designed for use on vehicle interior rearview mirrors; a checklist of birds; a postcard listing park web sites as a replacement for the much more costly and time consuming function formerly known as "kiddie mail"; and a supplement for the park newspaper about "Greening Yellowstone." Editorial and production assistance

was provided to the Comprehensive Planning Office to help complete the Tower-Roosevelt Comprehensive Plan. Beyond park boundaries, publication design and production support was provided to Olympic National Park to complete an expanded fishing regulations guide using the same format as Yellowstone's fishing regulations.

Publications serve a vast and diverse audience of park visitors and the general public. As with exhibits, it is difficult to accurately count the many occasions when visitors used park-produced publications, and precise counts may never be obtained. The process of determining a reasonable method of counting publication use will continue to be refined. However, during 2009, we estimate that each visitor used approximately three different publications during the course of a typical visit. (This number is derived from a standard calculation that estimates our individual publication use episodes at 10,544,598 divided by 3,176,251 publications distributed.) Along with other interpretive media, publications are the most cost-effective means of providing services that are highly valued by YNP visitors.

Web/Internet Program

The Web Program develops, maintains, and evaluates Yellowstone National Park's official web site and related assets, including electronic field trips on Windows Into Wonderland, and a social networking presence on Twitter. It works closely with all park divisions, offices, and partners to acquire and manage information from which high impact, high quality, and diverse interpretive and educational products are delivered to millions of users of all ages and backgrounds nationally and internationally. Through dynamic web-based features, staff creates a "virtual park experience" designed to engage a global audience in understanding the significance of Yellowstone NP and become supporters of its ongoing preservation. The official web site also continues to evolve in order to achieve broader goals relative to "e-government" and the transparency of government institutions.

Yellowstone National Park's official web site continues to be the most viewed park web site in the NPS.gov system. Yellowstone's web pages were viewed a total of 74,156,942 times in FY09. This constituted a 15% increase over the use of the park's web site in FY2008. The park's homepage alone was viewed 3,248,626 times. Other key entry points into NPS.gov are the Plan Your Visit Pages – the NPS WASO Web Office estimates that 75-80 percent of the public come to NPS.gov for this reason. Yellowstone again led the way with 1,130,254 page views of its Plan Your Visit index page.

Other key sections include the park's webcam collection which provides views of Old faithful, Mt. Washburn and Mammoth Hot Springs. These pages were viewed more than 8.5 million times, and linked the public to a broad range of related interpretive and educational material in the process. The Live Streaming Webcam Launch Page had **1,609,639** page visits (or 2,047,542 *page views*). Outside of our webcam collection and the Yellowstone homepage, it was the single most viewed web page on our site in FY09

Web stats software reported visits from 230 countries worldwide. In FY09, the top countries with the most web visits were (in order) Canada, the United Kingdom, Germany, France, Netherlands, Italy, Australia, Japan, Ireland, and Spain.

During FY2009, the Web office broadened its outreach efforts when it entered the social media network community by launching a Twitter page. Emergency notifications, road and weather conditions, fire activity and general news are now sent automatically to a list of followers, many of whom include organizations with large followings (for example, Martha Stewart or the National Geographic Society). These items then get "re-tweeted" or forwarded to their followers, and so on. Communities form around specific areas of interest, such as fire management, wolves and webcams. When inaccurate or misleading

leading information begins to circulate on the web surrounding hot topics or issues, web staff can now tweet brief messages and links to officially released park service information on official channels in a timely manner.

Web Office staff serve as consultants, along with a handful of other NPS employee's servicewide, in working with the WASO web team to solve problems with the use of the Content Management System and continuously improve current web sites while identifying appropriate new technologies to support ever expanding interpretive and educational programs and goals for the future.

Some of our mostly timely informational pages, Current Conditions and Travel Alert, for example, drew a tremendous amount of attention in 2009, because of road projects. Current Conditions was very well maintained and use grew by 45 percent over last year's visitation. Road Closures use grew by 31%. Travel Alert (which highlights the Gibbon Canyon Project, including a video) received a whopping 120K visits in about a 4-month-period of time.

Web videos, podcasts, and live ranger programs continued to be developed. Web videos and podcasts have grown to provide a comprehensive introduction to almost every facet of Yellowstone, serving prospective visitors and lifelong learners alike. Goals for the next phases of development include expanding the orientation section and adding virtual hikes to several spectacular backcountry venues. Live ranger programs offer exciting possibilities for engaging new and nontraditional audiences. Over 30 episodes of live programming was offered in 2009 as a means of testing equipment and the infrastructure associated with the Live Streaming Web Cam at Old Faithful. These prototype programs provided valuable experience and the results will be used to improve the quality of future live programs.

Photography/Videography Program

Park Photographer/AV Specialist Jim Peaco again spent significant amounts of time troubleshooting the Canyon VEC theater and exhibits. Repeated problems with theater electronics required extensive consultation with theater and electronics contractors to track down problems with the complex equipment and systems that run the interpretive media at Canyon VEC. In addition, this office responded to over 500 requests for services from all park divisions and partners. Special events requiring photo documentation included the visit of President Obama and party. In addition, Jim is responsible for coordinating audiovisual system troubleshooting and equipment management for nine visitor contact facilities and seven campground amphitheaters, and maintained the division's equipment cache that supports AV systems and presentations at these facilities. Jim also provided presentations to university photography classes and other groups sponsored by the Yellowstone Association Institute. This office provides essential support for all interpretive programs and interpretive media development, and is frequently called upon to accompany non-NPS photographers and media.

Work continued on the slide scanning and digitization project. Efforts to keep the online image bank completely up to date continued to be made more time consuming and difficult by problems and the process associated with the NPS Content Management System. However, the existing collection of digital images available to the public online is highly popular; the index page which provides access to the digital image bank is always among the top 5 most visited YNP web pages.

Operations Branch

Visitor facilities operated in FY2009 included Albright Visitor Center (year round), the temporary Old Faithful Visitor Center, Canyon Visitor Education Center, Fishing Bridge Visitor Center, Grant Visitor Center, Madison Information Station/Junior Ranger Station, Norris Geyser Basin Museum, Museum of the National Park Ranger (Norris Campground), West Thumb Contact Station, and the West Yellowstone

Visitor Information Center. During the winter season, Albright and Old Faithful Visitor Centers and West Yellowstone VIC were operated, and warming huts at Madison Junction, Canyon, Fishing Bridge, and West Thumb provided basic winter visitor services.

Park interpretive rangers provided information and orientation to 2,048,135 visitors at 13 different visitor centers, museums, and warming huts. They presented 7,517 formal interpretive programs to 254,716 visitors participating in walks, talks, hikes, and evening programs. Interpretive rangers provided informal interpretation (also known as “roving” interpretation) at critical resource locations throughout the park including geyser basins, along the rims of the Grand Canyon of the Yellowstone River, major overlooks and scenic attractions, wildlife jams, picnic areas, and campgrounds. Informal interpretive activities resulted in 357,659 visitor contacts.

The park moved the Ranger Adventure Hikes, a half-day program, from a cost-recovery program to a free program service, serving 1,747 visitors in 2009. Visitors participating in this program consistently offer overwhelmingly positive comments about the high quality of the hikes and the opportunity to spend in-depth time with a ranger.

This year, a total of 21,119 children and their families were served through the Junior Ranger Program and Young Scientist Program, the latter being available at Canyon and Old Faithful. These programs are coordinated by the Formal Education Branch, with publication production services provided by the Planning and Media Branch, and program delivery provided by the Field Operations Branch. A total of 11,043 Junior Rangers and their families participated in programs at the Junior Ranger Station, located in the former Madison Museum building.

The Elk Corps Volunteer Program was again successful in reducing autumn rut-related incidents involving elk-human conflicts in the Mammoth area. This was the fifth year of this project that operated with volunteers from early September through mid-October in the Mammoth Hot Springs Sub-district. Volunteers assisted in controlling crowds, creating a safe wildlife viewing environment for visitors while protecting wildlife, and providing critical resource information to park visitors. Four volunteers were hired for months of October, 2008 & September 2009. Volunteers provided information to 9,262 visitors and resource warnings for being too close to elk to 2,925 visitors during 2009.

The Wolf and Bear Education Programs continued to be offered. Interpretive park rangers provided educational information at the locations where wildlife and visitors interacted, informed visitors about wildlife habituation, enhanced visitor and wildlife safety, and reduced visitor/animal conflicts. Interpretive Rangers made 66,263 educational contacts. The team presented 52 formal interpretive talks and evening programs. These programs were attended by 6,716 visitors.

The Gateway Community Outreach Program continued to be a valuable communication tool for park management in 2009. District interpretive staff attended 63 community meetings in the tri-state area, making 2,736 professional contacts through attendance at Chamber of Commerce meetings, civic organization meetings, and special event shows in the region. The goal of this program is to continue to develop and maintain positive, mutually respectful, and beneficial relations with park gateway communities located in Montana, Idaho, and Wyoming. In addition to the normal exchange of information at these meetings, the Community Outreach Program became a critical component of the park’s communication plan for ensuring that information about the Gibbon Canyon road construction delays and closures was widely disseminated throughout the main season of visitation.

Staff provided a variety of special tours, talks, and programs for visiting dignitaries and special groups such as the 21st Century Commission. The Division also provided substantial support for the visit of President Obama, as noted above.

Formal Education Branch

This was a year of growth and change for the Education Branch as they moved toward a more proactive outreach program for youth. The Division began an internal evaluation with primary goals to: 1) reach new and underserved audiences; 2) use funds—both public and private—most efficiently and effectively; 3) make Yellowstone’s resources relevant to visitors; and 4) cultivate a stewardship ethic among young people so they will gain not only an understanding of the importance of protecting the Park, but also of the broader sustainability practices that can make a difference in their own communities. Based on this internal evaluation, Yellowstone began improving and adapting some of the programs funded by Toyota USA in 2009. Revisions ensured that they have optimal cost effective impact and better achieve the goals of this grant.

Reaching beyond Yellowstone’s borders to engage new audiences, education staff travelled to regional Science Fairs, Native American reservations and schools, and other special events to provide hands-on activities for youth and their families. Staff attended and participated in 39 such events, and contacted 10,213 individuals.

A record number of children and their families participated in the Junior Ranger/Young Scientist program. 25,072 papers/booklets were sold and 21,119 completed the program and were awarded a patch or key chain.

The park continued to offer *Day Use* programs to primary, secondary, and college students visiting the park. 135 programs were offered for 3,551 visitors.

Four Teacher Workshops were conducted in 2009. Three workshops were offered with assistance from the Yellowstone Association Institute (YAI). In addition, YAI received a grant from the Daniels Fund to offer Wyoming teachers full scholarships for the workshops. Topics presented were: *What Lies Beneath* (geology and microbiology), *Hunter Hunted* (predator-prey ecology), and, *Take It Outside* outdoor ecology, geology, and history). The fourth workshop was for teachers whose students participate in *Expedition: Yellowstone!*. The *EY-STaRRs* workshop was part of a NSF-funded research experience and focused on how teachers could connect their lesson plans to the Mammoth Hot Springs area. Seventy-seven teachers participated in the workshops.

A Cross Cultural Exchange experience was offered to Eastern Shoshone Tribal youth and elders. This 4-day residential experience brought 14 Eastern Shoshone youth, 3 elders, and 4 chaperones to the park. Two NPS instructors provided an overview of park resources and the Eastern Shoshone elders provided education on their heritage related to the greater Yellowstone area.

Toyota USA continued to provide generous support for the *Day-Use Program*, *Junior Ranger/Young Scientist Programs*, *Teacher Workshops*, and the evolving *Cross Cultural Exchange Program*.

In 2009, 1,196 students, teachers, and chaperones representing 42 schools, participated in the residential education program, *Expedition: Yellowstone!*. Of that number, 193 students (26%), representing underserved and/or disadvantaged target audiences, received full or partial scholarships to attend the program. These scholarships were provided by donations from the Yellowstone Park Foundation.

Park staff continues to research the broader concept of providing a distance learning program that could be used by educators and their students anywhere in the country throughout the year. (The Distance Learning concept will be developed to address lifelong learners of all ages and with a mostly informal education focus and design.) In addition, specific technical issues and equipment needs, as well as NPS

wireless communications policies, are being explored in order to determine how to build a comprehensive distance learning program. Educators participated in two pilot video conferences with an elementary school in February and March. This information will benefit the park as they build the more comprehensive program that will ultimately serve large and diverse constituencies.

The park has been gathering information on ways to improve outreach to members of the 26 tribes affiliated with Yellowstone. Park staff has recently identified six target schools and have been developing a list of questions for school representatives relating to computer and distance learning capabilities and interest for visits by NPS staff in order to more effectively engage this underserved Park constituency. This interaction would not preclude a visit to the Park, but the program would no longer offer the residential component that the *Cross Cultural Exchange* provided.

Parkwide Volunteer Program

The park's 773 volunteers donated 98,251 hours of service in 2009. Highlights of the FY09 volunteer program include:

- 88 volunteers from 14 states participating in Yellowstone's first "BioBlitz" natural resource inventory event.
- Completion of backcountry trail clearing and frontcountry corral work by a group of 19 volunteers including 5 men from the "Wounded Warrior Project" who were veterans of the Iraq War.
- Critical resource education and protection by the Upper Geyser basin Volunteer Corps who contacted 18,900 visitors.
- Two National Public Lands Day events on September 26, where 34 volunteers worked to revitalize the Mammoth Cemetery and the Wapiti Trail at Canyon.
- Five volunteers from across the US and Great Britain who remotely operated the pan, tilt, and zoom functions of the Old Faithful Live Streaming Web Cam. No other single program had such high visibility or public impact, as documented through page visit statistical monitoring.

Safety

The Division had four injuries in FY09; one was classified as a DART injury. Field Supervisors were provided with information on slips, trips, and falls to employees to use at safety tailgate sessions. The Operations and Education Branches completed 402 safety tailgate sessions and 26 safety observations (walkthroughs) for employees or facilities. Planning and Media staff developed highly effective public safety educational media that constituted the most cost effective means of ensuring visitor safety and compliance with park rules and regulations.

Other

Division staff served on various interdivisional work groups including; the Research Permit Team, the Environmental Management Team, the parkwide Employee Safety Council, the Resource Compliance Team, the Exotic Vegetation Management Team, the Mammoth Area Space Team, the Lake Comprehensive Planning Team, and the Old Faithful Comprehensive Planning Team.